SECURITY & SURVEILLANCE RESOURCE GUIDE

Canon

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THE CANON SECURITY & SURVEILLANCE ENVIRONMENT

A leader in digital imaging and advanced optics, Canon offers a range of products with outstanding performance and sophisticated features for security professionals.

VB-H41 Full HD PTZ IP Security Camera

2.1 megapixel widescreen CMOS sensor, 20x wide-angle optical zoom lens, Video Analytics, advanced Canon DiG!C image and video processors, exceptional low-light performance, and simultaneous H.264 and M-JPEG HD output.

VB-H610VE Full HD Fixed IP Security Camera

Vandal resistant, IP66-rated 2.1 megapixel dome camera with a 111° wide-angle lens, exceptional low-light performance, and Canon's Remote Adjustment Function to change viewpoint, zoom, and focus from any PC.

VB-H610D Full HD Fixed IP Security Camera

2.1 megapixel dome camera with a 111° wide-angle lens, exceptional low-light performance, Video Analytics, and Canon's Remote Adjustment Function to change viewpoint, zoom, and focus from any PC.

VB-H710F Full HD Fixed IP Security Camera

2.1 megapixel full HD "box" style fixed IP security camera with an ultra-wide 112.6° angle of view, exceptional low-light performance, Video Analytics, and a labor-saving motorized focus and zoom function.

Canon

VB-H41 Full HD PTZ IP Security Camera

- Full HD CMOS Sensor
- Genuine Canon 60.4º Lens with 20x Optical Zoom and Advanced Auto Focus
- Brilliant Low-Light Performance
- On-board Video Analytics
- Simultaneous H.264 and M-JPEG 1920 x 1080 Full HD Output
- ONVIF Profile S Conformant
- DIGIC NET II Network Video Processor
- DIGIC DV III Image Processor

The VB-H41 is an ONVIF Profile S conformant camera featuring a Genuine Canon 60.4º wide-angle lens with 20x optical zoom and Canon Auto Focus. Equipped with a 2.1 megapixel widescreen CMOS sensor, the Canon DIGIC DV III image processor for superb picture quality, and the Canon DIGIC NET II network video processor for simultaneous transmission of H.264 and M-JPEG at 1920 x 1080 up to 30fps, the VB-H41 provides class-leading low-light performance as well as Smart Shade Control and Auto Day/Night capabilities to optimize image detail and clarity. The camera also features sophisticated built-in Video Analytics, which include moving, removed, and abandoned object detection as well as passing (or "tripwire") detection. Built-in Analytics also detect for camera tampering and abnormal sound-levels that may indicate vandalism.

VB-H610VE Full HD Vandal Resistant Dome IP Security Camera

- Full HD CMOS Sensor
- Outdoor IP66 Rated
- Vandal Resistant Dome
- Remote Adjustment Function
- Genuine Canon 111° Wide Angle Lens
- On-board Video Analytics
- Simultaneous H.264 and M-JPEG 1920 x 1080 Full HD Output
- ONVIF Profile S Conformant
- DIGIC NET II Network Video Processor
- DIGIC DV III Image Processor

The VB-H610VE withstands the elements and adversaries in equal measure, with an IP66 outdoor rating and a vandal-resistant dome. The camera features a Genuine Canon aspherical wide-angle zoom lens, a 2.1 Megapixel 16:9 aspect ratio CMOS image sensor, the Canon DIGIC DV III image processor for superb picture quality, and the Canon DIGIC NET II network video processor for simultaneous transmission of H.264 and M-JPEG at 1920 x 1080 up to 30fps. Delivering class-leading low-light performance and Smart Shade Control for accurate exposure of high-contrast scenes, the VB-H610VE also includes Canon's installation-friendly Remote Adjustment Function to change the zoom, focus, and viewpoint (pan, tilt, and rotation angle) of this stationary camera from any Internet-connected PC without removing the camera's dome. Built-in Video Analytics provide additional security utility.

VB-H610D Full HD Fixed Dome IP Security Camera

- Full HD CMOS Sensor
- Remote Adjustment Function
- Brilliant Low-Light Performance
- Genuine Canon 111° Wide Angle Lens
- On-board Video Analytics
- Simultaneous H.264 and M-JPEG 1920 x 1080 Full HD Output
- ONVIF Profile S Conformant
- DIGIC NET II Network Video Processor
- DIGIC DV III Image Processor

The VB-H610D is a full HD fixed indoor IP security camera that delivers exceptional low-light performance. Canon's installation-friendly Remote Adjustment Function enables users to change the zoom, focus, and viewpoint (pan, tilt, and rotation angle) of this stationary camera from any Internet-connected PC without removing the camera's dome. Exceptional image quality is provided by a Genuine Canon aspherical wide-angle zoom lens, 2.1 Megapixel 16:9 aspect ratio CMOS image sensor, the Canon DIGIC DV III image processor, and the Canon DIGIC NET II network video processor for simultaneous transmission of H.264 and M-JPEG at 1920 x 1080 up to 30fps. Built-in Analytics provide additional security utility. Additional features include two-way audio connectors, built-in Management Tools, and a Web Viewer function for remote video monitoring by authorized users on supported web browsers.

VB-H710F Full HD Fixed IP Security Camera

- Full HD CMOS Sensor
- Genuine Canon 112.6° Wide Angle Lens
- Brilliant Low-Light Performance
- On-board Video Analytics
- Simultaneous H.264 and M-JPEG 1920 x 1080 Full HD Output
- ONVIF Profile S Conformant
- DIGIC NET II Network Video Processor
- DIGIC DV III Image Processor

The VB-H710F full HD "box" style fixed IP security camera features a Genuine Canon wide-angle 3x optical zoom lens with an ultra-wide 112.6º angle of view, a 2.1 Megapixel 16:9 aspect ratio CMOS image sensor, the Canon DIGIC DV III image processor for superb picture quality, and the Canon DIGIC NET II network video processor for simultaneous transmission of H.264 and M-JPEG at 1920 x 1080 up to 30fps. Delivering class-leading low-light performance and Smart Shade Control for accurate exposure of high-contrast scenes, the VB-H710F includes built-in Analytics and a labor-saving motorized focus and zoom function for convenience in challenging and/or large installation environments. A Viewer PTZ feature allows video from the camera to be magnified for an even closer look at specific image details.

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Photo courtesy of Gil Smith

Canon Megapixel IP Security Cameras Provide Comprehensive Video Coverage for The Ricardo Montalbán Foundation Theatre

Located in the heart of Hollywood, California, The Ricardo Montalbán Foundation Theatre is a venue for diverse cultural events. A well-equipped 1,000-seat facility, its security system includes several megapixel IP security cameras from Canon U.S.A., Inc., a leader in digital imaging solutions. The cameras are mounted on exterior and interior locations of the theatre, which is named after the late actor and performing-arts patron Ricardo Montalbán.

"Security is a concern in any busy urban area, and when you're moving large groups of people in and out, it's paramount for maintaining the confidence of both patrons and staff," noted Gil Smith, chairman of the Montalbán Foundation Theatre. "We have an iconic 1926 Broadway-style theatre building, and graffiti and vandalism are continuing challenges. We want to maintain a positive environment here, and video surveillance provides documentation after the fact. If there's an indication of some incident, you can go back and review the footage. This video information provides for better communication with both the community and the police."

Veteran Los Angeles area security equipment specialists Post Alarm Systems handled installation and integration of the Canon megapixel IP security cameras, which include: VB-M600VE fixed vandal resistant dome cameras for the exterior of the building, VB-M600D indoor dome cameras, and VB-M700F "box-style" cameras. Plans call for a VB-M40 PTZ (pan-tilt-zoom) camera to also be mounted to the outside of the building for wide-angle street views captured with its built-in

Industry

- Security

Customer

- The Ricardo Montalbán Foundation Theatre

Usage

- Public Safety Surveillance

VB-M600VE / VB-M600D / VB-M700F

Canon

"The Canon megapixel IP security cameras at the Montalbán Foundation Theatre are indispensable. The image quality detail, color accuracy, corner-to-corner focus, and low-light performance they deliver are amazing."

Genuine Canon 20x zoom lens. All Canon megapixel IP security cameras are ONVIF conformant to ensure network interoperability.

"My first concern in choosing security cameras was picture quality, and I knew of Canon's reputation for digital technology in its consumer and professional products," Smith recalled. "Canon is a world leader in optics and image-making, so my instinct was to look very seriously at their IP security cameras. I think it was a very good decision to go in that direction."

From Dark to Bright

The VB-M600VE, VB-M600D, and VB-M700F feature Genuine Canon optical zoom lenses, a 1.3-megapixel high-sensitivity CMOS image sensor, and a sophisticated Canon DIGIC NET image processor for excellent low-light performance. A Smart Shade Control feature automatically adjusts the contrast between bright and dark areas of the image to enhance the detail display. A special Night Mode provides increased low-light sensitivity over the standard recording mode.

VB-M600VE

"The theatre presents a lot of challenges for maintaining good picture levels," Smith informed. "Conditions range from the darkest dark on our theater stage, to the hottest hot in bright outdoor sunlight. Our entry court has deep, dark corners that turn into bright sunlit areas as the day progresses. The dynamic range that I'm seeing from these Canon IP cameras, from highlights to shadows, is amazing. The edge control from the sharpness of the Canon lens, and the way the images are processed, is much better than what I've seen from other security camera systems."

Remote Adjustment Function

In addition to their exceptional 1.3 megapixel imaging, the networked Canon IP security cameras at the Montalbán Theatre also feature Canon's Remote Adjustment Function, which enables integrators and installers to remotely change the viewpoint, zoom, and focus of these fixed cameras after installation remotely from any Internet-connected PC, without removing the camera's dome cover. Viewpoint adjustments to the image-capture area of these stationary cameras include their pan, tilt, and rotation angles. Access to the camera with a ladder or bucket truck becomes unnecessary, which eliminates the time and expense of on-site adjustments involving labor, transportation, and equipment. This feature is especially handy for large installations of multiple Canon IP security cameras.

VB-M700F

"Using Canon megapixel IP security cameras with the Remote Adjustment Feature saved us a good several hours per camera," noted Rich Buchanan, account executive at Post Alarm Systems, which installed the cameras at the Montalbán Theatre. "I can go down in front of a web page and make some tweaks in five seconds that would have taken me at least an hour to do if I was already on-site. That's a huge savings that adds up over and over again. The Remote Adjustment Function is definitely going to equate to happier customers, and having a happy customer is definitely going to equate to more referrals and recommendations of Canon products."

Yet another built-in feature of all Canon megapixel IP security cameras that the Montalbán Foundation Theatre is also taking full advantage of is video analytics, which assists in detecting abandoned, moving, and removed objects. User-adjustable in terms of detection area, sensitivity, and duration, these analytics can trigger alarms. In addition, camera analytics can alert for abnormal sound levels and tampering that may indicate a camera is being vandalized.

"The Canon megapixel IP security cameras at the Montalbán Foundation Theatre are indispensable," Smith concluded. "The image quality detail, color accuracy, corner-to-corner focus, and low-light performance they deliver are amazing. The system gives us the confidence that we can close the doors, walk away, and know that at any moment we can access our servers and the images that we are capturing 24/7. Canon is at the center of the digital revolution, and it has made high-quality imaging far more accessible."

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Canon IP Video Cameras Deployed in Innovative Public Safety Surveillance System

Law enforcement officials are fighting street crime and vandalism in a New England city using more than a dozen VB-C60 IP security PTZ (pan/tilt/zoom) cameras from Canon, a leader in digital imaging solutions. The cameras are part of an innovative 4.9 GHz public-safety surveillance system that was designed and installed by LCN, a division of E.G. Sawyer Co., Inc., a leading network integration company. Developed during the past six years, the system's strategically located Canon VB-C60 IP security cameras provide high-quality video that is helping to make a difference in crime detection and prevention.

"The Canon VB-C60 cameras are positioned on intersections, streets, parking areas, and other places where illegal activity occurs," explained Mike Lieb, president and founder of LCN, which is based in Weymouth, Mass. "We were originally using a different brand of camera, but then Dick Spellman of Systems Synergies, which re-designed our video management system, told us about the Canon VB-C60 camera and its far superior optics and better compatibility with third-party management products. The two engineers supporting the surveillance system tested a VB-C60 demo model and reported that its mechanism is more reliable than what we had been using, its housing is much easier to deal with inside an environmental dome, and its optics and 40x zoom are much better as well. The fact that it can pan, tilt, and zoom to see a license plate that's so far away is pretty impressive. These technical advantages and Canon's aggressive pricing made us start installing VB-C60 cameras about two years ago, and we have been very pleased with them."

Industry

- Security

Customer

- LCN, a division of E.G. Sawyer Co., Inc.

Usage

- Public Safety Surveillance

VB-C60

Canon

Security Details

In addition to its 40x optical-zoom capability, the Genuine Canon lens in the VB-C60 IP security PTZ camera also provides a horizontal field of view up to 56 degrees. This, combined with its wide panning range (± 170 degrees) makes the VB-C60 well suited to revealing important visual details, according to Lieb. "In the camera's ready state, when it's not zooming, it's looking at a larger field-of-view, and that's an advantage," he noted.

Equipped with a high-sensitivity progressive-scan CCD, advanced Auto Focus system and Image Stabilization, the Canon VB-C60 IP security PTZ camera is designed to capture clear pictures even of moving objects. The camera also features a Panorama Image Creation feature that can stitch together the entire viewing range into one image. This allows users to quickly aim the camera at any specific portion within its viewing range. Additionally, a Pre-set Tour function allows for up to 20 camera positions to be programmed and viewed at specified intervals.

Another key feature of the Canon VB-C60 IP security PTZ camera is Motion Detection, which can be triggered based on pre-set user parameters, and Subject Auto-Tracking, which automatically pans and tilts to follow a subject's movement. "The Auto-Tracking feature comes in very handy at night on school grounds, parking areas, and particular streets where there is a high propensity of crime," Lieb said. "When there's movement within the field of view we can also increase the frame rate for more detail."

Sized to Fit

The VB-C60 IP security PTZ camera uses the proprietary Canon DIGIC NET Processor, a powerful hardware-based engine that performs image processing and encoding. This enables the camera to handle simultaneous encoding of Motion-JPEG and MPEG-4 video in high-quality VGA (640 x 480) at up to 30 frames per second. The high image quality of Motion-JPEG is suited for live monitoring; the compression scheme of MPEG-4 is ideal for recording due to its smaller file size and lighter network load.

The VB-C60 IP security PTZ camera's ability to distribute Motion-JPEG images in three sizes simultaneously – 640 x 480, 320 x 240, or 160 x 120 – allows for access by a smart phone. The 320 x 240 size is useful when monitoring multiple cameras on a single screen; the 640 x 480 resolution provides for optimum image quality. The camera also has a recording stream function that can greatly minimize the possibility of lost frames due to brief network interruptions.

The Canon VB-C60 IP security PTZ camera can instantly take a picture and email it to a designated account or cell phone/PDA, or upload multiple images to an http or ftp server. Included with the camera is IPv6 and IPsec Support (IP security), a set of protocols for securing IP communications by encrypting data streams while also securing the data flow to and from the camera, ensuring only authorized users have access. "We recently deployed our camera-management system's remote-access capability," Lieb added. "Now officers and first responders can remotely log-in to the system with a secure URL, pull up the cameras, and view them on any smart phone. So, for instance, a camera can be monitored from a squad car parked nearby. We can leverage this canopy of wireless IP cameras by doing a quick deploy as crime moves."

Out of the Shadows

Crucial to its use in public safety surveillance, the Canon VB-C60 IP security PTZ camera also provides important low-light imaging features for the capture of vital visual details amid varying lighting conditions. These features include Smart Shade Control, which automatically adjusts the contrast between bright and dark areas of an image for optimum detail display, and an Auto Day/Night Capability that automatically switches to night mode depending upon lighting conditions.

"The low-light capabilities of the VB-C60 are definitely important," Lieb explained. "This is because many camera locations have only minimal ambient light at night. If you're watching video from a camera mounted five stories up hanging on a pendant looking down a street late at night, illuminated only by some distant street lights that are some distance away from what you're trying to capture, low-light capabilities definitely do make a big difference."

Expanding the System

For convenience and ease of installation, the VB-C60 IP security PTZ camera supports the IEEE 802.3af standard for Power over Ethernet (PoE) technology, which allows both power and data to be carried over a single LAN cable when connected to a PoE hub/switch/midspan. Since a power cable is not required, the camera can be installed at sites without accessible AC outlets.

"We are using PoE to energize the cameras and pull the imagery back," Lieb said. "In most cases those images are being transmitted over the 4.9 GHz wireless network."

"There are other products out there, but when we did our 'tire-kicking' on the Canon VB-C60 camera we found it was a far superior product," Lieb added. "My guys have been putting up cameras for years and I trust them. When they told me 'This thing is solid,' they were right."

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Canon IP/Network Video Cameras Present the World of Marine Conservation

Networked Canon VB-C60 IP Video Cameras Helps The Riverhead Foundation to Monitor Marine Wildlife Rehabilitation, Conduct Research, and Educate the Public

Recent events in the Gulf of Mexico have focused public attention on the importance of protecting the marine environment. More often, however, the work of marine conservationists and biologists goes unnoticed, as much of it – including helping injured marine animals – occurs behind closed doors. The Riverhead Foundation for Marine Research and Preservation (in Riverhead, N.Y.) is helping to change this situation by installing VB-C60 pan/tilt/zoom (PTZ) IP video cameras made by Canon U.S.A., Inc., a leader in digital imaging. The cameras, which were donated by Canon U.S.A. to the Riverhead Foundation to assist in the preservation of the environment, enable the public to use the Internet to view injured and stranded marine animals during their rehabilitation. Visitors to the Riverhead Foundation's rescue facility, located at the Atlantis Marine World Aquarium, can also access the VB-C60 PTZ IP video cameras from interactive kiosks to learn about the organization and its work with the animals. Currently, the Foundation provides video of seals and sea turtles in its care, and it plans to expand the coverage provided by its VB-C60 PTZ IP video cameras to other animals.

"The Canon IP video cameras are helping people to understand the important work we do at the Foundation," said Rob DiGiovanni, its director/senior biologist. "The public typically calls upon us when an animal is in need of care. We come out, assess the animal, and if it needs help we bring it back to our rehabilitation facility. Until recently, however, most of our work went unseen by the public."

"By using these Canon IP video cameras, we've been able to show the public what goes on behind the scenes, and we allow them to see the animals undergoing rehabilitation," added DiGiovanni. "The cameras make the public a more active part of the whole process, so that when it comes to the time that we can release these animals back out into the wild, the public is able to take part in that as well."

Fully web-enabled for easy networking across LAN or WAN environments, Canon's VB-C60 PTZ IP video cameras are remotely controllable, enabling visitors to the Foundation's web site to follow the animals' movements around

Industry

- Security & Surveillance

Customer

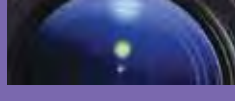
- Riverhead Foundation

Usage

- Long Zoom
- Low-Light
- Webcasting

VB-C60

Canon



“ The 40x optical zoom on the VB-C60 IP video cameras is another very useful feature for observing the animals,” added Wocial. “It allows us see important physical details without the need to actually go down to the tank.”

their containment area. A Genuine Canon 40X optical zoom lens and an intuitive web interface allows users to position the cameras, adjust brightness levels, and zoom in for an up-close look at creatures most people are unfamiliar with, even though they may live in relatively close proximity to their offshore marine habitats. The VB-C60 PTZ IP video cameras are housed in a protective dome to shield them from the humid and potentially wet environment of the containment and rehabilitation areas.

Canon Cameras Help Advance Marine Research

In addition to the general public, Foundation researchers and veterinarians also are using the Canon VB-C60 IP video cameras to monitor seals, sea turtles, and other marine animals. “The cameras enable us to monitor the animals’ behavior before we go out to feed them,” explained Julika Wocial, rescue program supervisor. “We also are able to see how they are interacting with the public, volunteers, and staff, and we can observe if there are any changes in behavior. If there is an issue we might want to look at, we can record these behaviors for a more detailed examination.”

“The 40x optical zoom on the VB-C60 IP video cameras is another very useful feature for observing the animals,” added Wocial. “It allows us see important physical details without the need to actually go down to the tank.”

This feature is particularly important for dolphin rehabilitation, Wocial noted. “Canon VB-C60 IP video cameras will not only allow the public to see them, but will also help us in identifying any idiosyncratic behaviors the animal might have. We can view dolphin video on a real-time basis and watch it a lot more closely without having to go to the tank. One of the key challenges when rehabilitating a dolphin is human interaction; we don’t want the animal to ‘imprint’ on us. So we see the cameras as being an extremely valuable tool going forward to prevent that from happening.”

The capabilities of Canon’s VB-C60 IP video cameras also make them relevant for many other applications and markets. These include remote monitoring of animals in zoos, stables, farms, pet-boarding services, and other types of scientific research facilities. Canon’s IP video cameras are also widely used in the security industry.

Marine Wildlife Monitoring Network

Canon VB-C60 IP video cameras are also key to the Foundation’s future plans for broadening its information-gathering efforts on marine animal behavior in the wild. A network of Canon IP video cameras installed near beaches and other shoreline areas is being considered, noted DiGiovanni.

“We are trying to develop a system where we can deploy these cameras out in the field to look at animals in the wild and gather information on their population and distribution as well as their health status,” he said. “Ideally, we would love to put some Canon VB-C60’s in some of the more well-defined areas where seals congregate. With that type of a set-up, we can observe wild behaviors. The amazingly clear resolution of the Canon VB-C60’s powerful 40x optical zoom lens would enable us to identify previously tagged and released animals to keep tabs on their progress in the wild.”

DiGiovanni revealed that powering an IP video monitoring system in the wild can prove to be a challenge, as remote locations usually lack an electrical connection. Fortunately, the Canon VB-C60 cameras offer a variety of power options, ranging from the single-cable Power over Ethernet (PoE) option to a 24VAC, or a 12V DC input for external power, such as that provided by solar panels.

“We are working closely with the local parks to gain access so we can put these cameras out there,” he stated. “They are all coming on board because they agree that this is a terrific concept with a lot of potential.”

Distance Learning

Canon VB-C60 mounted above seal tank.

Educating the public about marine animals – and how they may be negatively impacted by human activity ranging from pollution to recreational boating – is another area in which the Foundation is relying on the superior imaging and operational advantages of Canon VB-C60 IP video cameras.

“We recently put the animals up on our website,” Wocial informed. “Since then, we have incorporated use of the cameras at a few fairs and in some educational programs at local schools. Whenever we book an education program at a school or facility we will try to get Internet access so we can incorporate real-life images into our programs. Before the installation of the Canon VB-C60 IP video cameras we showed previously recorded video. Live, real-time image access is, however, something I feel can be very beneficial for young people because they can see first-hand what is happening in the facility.”

“Before we installed the Canon VB-C60 IP video cameras, we were using video conferencing systems to reach out to children that don’t live close enough to visit the aquarium and see the animals for themselves,” DiGiovanni elaborated. “Now anybody in the country can see them. Hopefully this will enable us to spread our educational programs and do more remote-access education that can help raise awareness of the importance of protecting our marine environments.”

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Canon IP Security Cameras Enhance Safety In Multiple Locations At Expansive Petroleum Processing Facility

One night, not too long ago, a suspicious car drove into a remote corner of a West Coast petroleum processing facility and parked. Under normal circumstances, this situation is cause for concern warranting immediate attention. Fortunately, the superior low-light capabilities of the facility's recently installed VB-C60 PTZ (pan/tilt/zoom) Network Cameras from Canon, a leader in digital imaging, revealed the presence of the vehicle and alerted security personnel.

"In pretty much no light – no street lamps or other lighting around – you could see the suspects come in and you could make out their silhouettes moving around," explained Leslie Corriea, President of Pacific Beach Tower, Inc. who designed and installed the facility's video security system. "The fact that these cameras perform very well in low-light environments is key, as that information can be critical in making positive identifications."

Corriea solved the challenge of monitoring the petroleum processing facility's many acres of pipelines, storage tanks, equipment sheds, railways, and gantries by strategically placing Canon VB-C60 PTZ Network Cameras to stand watch 24/7 over the facility's sensitive, hard-to-see areas.

"I have these cameras set up to record on Motion Detection, and that's how I always set them up, as it saves a lot of drive space," noted Corriea. "With the pre-record set-up, you can get three, five, or even 10 seconds of pre-record. The VB-C60's robust software gives you some buffer so you can record prior to the event."

Industry

- Security & Surveillance

Customer

- Pacific Beach Tower, Inc

Usage

- Low Light
- Long Zoom

VB-C60

Canon

"The fact that these cameras perform very well in low-light environments is key, as that information can be critical in making positive identifications."

Using the Motion Detection and Auto Tracking feature enables users to designate up to four motion-detection areas, each with varying levels of sensitivity. The Canon VB-C60 Network Cameras automatically pan and tilt to follow the subject's movement following a motion event (a change in pixels). Although not used in this particular application, pre-recorded audio also can be set to playback on cue.

Advanced Optics

As a worldwide leader in optics and imaging technologies, Canon leveraged its lens-making know-how to offer an industry-leading 40x optical zoom lens on the VB-C60 PTZ Network Cameras. "The cameras have a great focal range and they rack well," Corriea said of the VB-C60. "The Auto Focus and all of the features that work in conjunction with that 40x Canon zoom lens work really well. It cleanly and quickly conforms to resolution once you zoom in or zoom out."

The VB-C60 PTZ Network Camera also features Canon Image Stabilization to keep images steady in mounting locations prone to vibration and shaking such as towers, poles, or next to rail tracks and high vehicle-traffic areas.

During the day, the facility's Canon VB-C60 PTZ Network Cameras are monitored from a remote location to keep watch over all activity around the facility and ensure that workers and contractors safely comply with all regulations. To keep images consistently looking sharp, an important benefit these cameras offer is Smart Shade Control, a Canon feature that automatically adjusts contrast for heavily backlit subjects.

"We had an incident just the other day," noted Corriea. "One of the Canon VB-C60 PTZ Network Cameras actually captured someone breaking one of the rules on video. I happened to be in the office as the client was calling the plant manager responsible for that person to notify them of their error."

Powerful Video Processor

Corriea has configured the petroleum processing facility's video security system to transmit images captured by the on-site Canon VB-C60 PTZ Network Cameras wirelessly to a network video recorder (NVR). Images can be transmitted in both high-quality VGA-size [640 x 480] MPEG-4 and M-JPEG formats at a full 30 fps simultaneously without loss of frame rate. The secret to simultaneous output in two different formats is Canon's proprietary DIGIC NET processor. This powerful hardware-based compression engine performs all encoding, encryption, and transmission while also enabling it to simultaneously distribute M-JPEG video in three sizes.

"The DIGIC NET processor on the VB-C60's is very impressive," noted Corriea. "Canon has taken a big step by producing their own processor and it shows in the cameras' high image quality and impressive processing power."

Powering Up

Canon's VB-C60 PTZ Network Cameras can be powered with Power over Ethernet (PoE) (enabling wiring with Cat-5 cable) or DC. "In this case, we ran independent A-plus and A-minus lines so the cameras are on a totally uninterruptible power system and tied to the grid," said Corriea. "This same power system can be tied directly to solar so I could run it off that easily enough as well." Corriea's company also specializes in solar-power installations.

"The biggest consideration when marrying solar with a camera and a wireless system is how efficient the products are," continued Corriea. "Even when you are actively running all of the servos on the VB-C60's pan, tilt, and zoom it's only pulling about 6000 milliwatts, which is pretty solid."

Safe, Secure and Happy

Corriea and his petroleum facility client are pleased with the high-quality results of their new Canon VB-C60 PTZ Network Cameras video-surveillance system and what he describes as "live-looking" images.

"Clients want to see real live-looking video, not all choppy-looking," Corriea noted. "Canon's got some of the best lenses around, that's one of the reasons why I tried them. The images look really outstanding. Even when the NVR requires me to have the settings adjusted down, it still looks good. I will definitely deploy Canon security cameras again."

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Security Products

Who Goes There?

IP video cameras enhance security and safety at petroleum processing facility

By Leslie Corriea

In an age of heightened security concerns, potentially vulnerable manufacturing and processing plants are re-evaluating their security systems and looking for new ways to protect assets. This is particularly true of expansive facilities handling vast amounts of volatile materials, as monitoring large, dimly lit areas has long been a security challenge.

When a petroleum processing facility came to Pacific Beach Tower looking for a video surveillance solution to cover sensitive and hard-to-monitor areas, officials did a walk-through security assessment and designed a system to tighten the facility's security net.

Security officials solved the challenge of monitoring many acres of pipelines, storage tanks, equipment sheds, railways and gantries by strategically placing PTZ network cameras to watch over the facility's sensitive, hard-to-see areas 24/7. The Canon cameras were selected because of low-light capabilities and 40x optical zoom. By capturing images in low-light situations, security staff can be alerted and zoom in on suspicious activity from inside the security command center.

PUT TO THE TEST

Shortly after their installation, the cameras proved their value.

One night, a suspicious car drove into a remote corner of the facility and parked in a newly constructed parking lot with no lighting. Fortunately, the recently installed cameras revealed the presence of the vehicle and alerted security. In virtually no light—no street lamps or other nearby lighting sources—security was able to watch the suspects enter, observe their silhouettes moving around and provide critical information to help police make positive identifications.

The cameras were set up to record on motion detection, as this saves drive space and makes finding important video segments easier. The built-in, pre-record set-up, and the cameras' robust software, provides the ability to capture video of the area three, five or even 10 seconds prior to the motion event.

In addition, motion detection and auto-tracking features enable users to designate up to four motion-detection areas, each with varying levels of sensitivity. The cameras have the ability to track a subject's movement following a motion event (indicated by a change in pixels) by automatically panning and tilting to keep the subject in the frame. Although not used in this particular application, pre-recorded audio also can be set to play back on cue.

During the day, the cameras are monitored from a remote location to watch over all activity around the facility and ensure that workers and contractors comply with all regulations. To keep images consistently looking sharp, the cameras use a Smart Shade Control that automatically adjusts contrast to compensate for backlit subjects. This proved valuable in identifying and preventing a potential safety issue at the facility. Recently, one of the cameras captured someone breaking one of the rules, and the client was overheard calling the manager responsible for that person to notify them of the error.

The cameras also offer a number of other useful features in addition to its 40x optical zoom lens, such as image stabilization. The lens is equipped to automatically focus on the subject while quickly conforming to resolution. The image stabilization feature helps keep images steady in locations prone to vibration, such as on towers or poles or next to rail tracks and high-traffic areas.

SENDING IMAGES BACK TO BASE

The facility's video security system is configured to transmit images captured by the on-site cameras wirelessly over a HauteSpot Networks router to an NVR. Images can be transmitted in both high-quality VGA-size—640x480—MPEG-4 and M-JPEG formats at a full 30 fps simultaneously without loss of frame rate. The cameras' powerful hardware-based compression engine performs all encoding, encryption and transmission, while also enabling them to simultaneously distribute M-JPEG video in three sizes.

The router provides high data rates and superior throughput for data-intensive and latency-sensitive applications. It can be configured to use either the "TDMA-like" protocol, which delivers unparalleled video streaming performance for the most demanding IP surveillance applications, layer-2 or layer-3 mesh, or standard 802.11.

POWERING UP

The cameras can be powered with PoE—via Cat-5 cable—or DC. In this case, independent A-plus and A-minus lines were used so the cameras are on an uninterruptible power system and tied to the grid. This same power system also can be tied directly to solar panels.

The biggest consideration when marrying solar power with a camera and a wireless system is the efficiency of the products. Even when these cameras are actively running all PTZ and auto-focus servos at once they only draw about 6,000 milliwatts, which makes them very adaptable to alternative power options.

SAFE, SECURE AND HAPPY

The petroleum facility is pleased with the high-quality results of their new network-based video-surveillance system and the "live-looking" images it provides.

Clients are increasingly looking for real live-looking video in their surveillance solutions. The images on these cameras look really outstanding—even when the NVR requires that settings be adjusted down.

Leslie Corriea is president of Pacific Beach Tower Inc.

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VB-H41 FULL HD PTZ IP SECURITY CAMERA

Feature-Packed Full HD PTZ Megapixel

Engineered with a new structural design for increased durability with improved bearings and a flexible-cable assembly, the impressive Canon VB-H41 Full HD PTZ IP Security Camera includes an impressive Genuine Canon 60.4º Wide Angle 20x Zoom Lens (with 12x digital zoom), **DiG!C DV III** image processor, **DiG!C NET II** network video processor, and an improved Auto Focus algorithm to improve focusing accuracy even in the most challenging low-light, low-contrast environments. Working together with a built-in temperature sensor, the VB-H41 Auto Focus algorithm also corrects for temperature changes in the installation environment. An electronic Image Stabilization feature minimizes blur that can be caused by vibration in the installation base, and the VB-H41 supports the USB joystick for controlling PTZ and presets. The VB-H41 is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection, Camera Tampering Detection, Volume Level Detection, and a new Passing (or "tripwire") Detection. The VB-H41 also conforms to the ONVIF Profile S standard ensuring compatibility with other ONVIF-compliant third-party products.

Key Features

- Full HD CMOS Sensor
- Genuine Canon 20x Optical Zoom Lens
- Brilliant Low-Light Performance
- On-Board Video Analytics
- Advanced Auto Focus
- Electronic Image Stabilization
- ONVIF Profile S Conformant
- **DiG!C DV III** image processor

- **DiG!C NET II** network video processor transmits H.264 and M-JPEG simultaneously at 1920 x 1080 up to 30 fps

Recommended For:

- Financial Institutions
- Hospitals/Medical Facilities
- Educational Institutions
- Commercial Offices/Retail Locations
- Airports and Transportation Centers
- Casino/Gaming Industry
- Military and Government Agencies
- Industrial/Utility Companies

VB-H41 Full HD PTZ IP Security Camera

PRODUCT NAME: VB-H41 ITEM CODE: 6812B002 UPC CODE: 013803157413

SPECIFICATIONS

CAMERA	IMAGE SENSOR		1/3 type CMOS (primary color filter)
	NUMBER OF EFFECTIVE PIXELS		Approx. 2.1 million pixels
	SCANNING METHOD		Progressive
	LENS		20x optical (12x digital) zoom lens with auto focus
	FOCAL LENGTH		4.7 (W) – 94mm (T)
	F-NUMBER		F1.6 (W) – F3.5 (T)
	VIEWING ANGLE		Horizontal: 60.4° (W) – 3.2° (T) Vertical: 35.1° (W) – 1.8° (T)
	DAY/NIGHT SWITCH		Auto/Manual
	MIN. SUBJECT ILLUMINATION	Day Mode (color)	0.4 lux (F1.6, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.03 lux (F1.6, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.01 lux (F1.6, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
		Night Mode (monochrome)	0.02 lux (F1.6, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.002 lux (F1.6, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.001 lux (F1.6, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
	FOCUS		Auto/One-shot AF/Manual/Fixed at infinity
	SHOOTING DISTANCE (FROM FRONT OF LENS)		Day Mode: 0.3m (12 in.) – infinity (W), 1.0m (3.3 ft.) – infinity (T) Night Mode: 1.0m (3.3 ft.) – infinity (W), 1.5m (4.9 ft.) – infinity (T)
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000 sec.
	EXPOSURE		Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/ Manual (Shutter Speed, Aperture, Gain)
	WHITE BALANCE		Auto/Light Source ((Daylight Fluorescent/White Fluorescent/ Warm Fluorescent/ Mercury Lamp/Sodium Lamp/Halogen Lamp)/Lock (One-shot WB)/Manual
	METERING MODE		Center-Weighted/Average/Spot
	EXPOSURE COMPENSATION		9 levels
	SMART SHADE CONTROL		7 levels (increases the brightness of shaded subjects in a video)
	AGC LIMIT		5 levels
	IMAGE STABILIZER		2 levels (digital)
	PAN ANGLE RANGE		340° (±170°)
	TILT ANGLE RANGE		100° (ceiling-mounted position: -90° – +10°) – When the horizotal direction of the camera is 0°
	MOVING SPEED		Pan: Max. 150°/sec., Tilt: Max. 150°/sec.
SERVER	VIDEO COMPRESSION METHOD		M-JPEG, H.264
	VIDEO SIZE		M-JPEG: 1920 x 1080, 960 x 540, 480 x 270, 320 x 240 H.264: 1920 x 1080, 960 x 540, 480 x 270
	VIDEO QUALITY		M-JPEG, H.264: 5 levels
	FRAME RATE		M-JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps
	MAX. FRAME RATE		1920 x 1080: 30 fps
	I-FRAME INTERVAL		0.5/1/1.5/2/3/4/5 sec
	SIMULTANEOUS CLIENT ACCESS		Max. 30 Clients + 1 Admin Client – H.264: Max. 10 Clients
	CAMERA CONTROL		Administrator, Authorized user, Guest user (level of control varies depending on user) Max. 50 user names and passwords registered for authorized users.
	ACCESS CONTROL		User authority (user name and password), Host Access Restrictions (IPv4, IPv6)
	ENCRYPTED COMMUNICATIONS		SSL/TLS, IPsec (Auto Key Exchange/Manual)
	PROTOCOL	IPv4	TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (Client), DHCP (Client), DNS (Client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
		IPv6	TCP/IP, UDP, HTTP, FTP, SMTP (Client), DHCPv6 (Client), DNS (Client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
	AUTOIP		Available
	AUDIO COMPRESSION METHOD		G.711 μ-law (64 kbps)
	AUDIO COMMUNICATION METHOD		Full-duplex (two-way) – Echo cancellation function compliant Sound Transfer Protocol by Canon
	AUDIO FILE PLAYBACK		Available (audio files can be played back when an event is triggered by the intelligent function or external device input.) – A separately-sold amplifier speaker is necessary
	PRIVACY MASK		Number of registration: Max. 8 places, Number of mask colors: 1 (select from 9 colors)
	PRESET		Max. 20 positions (Digital) (Preset Tour capable)
	INTELLIGENT FUNCTION	VIDEO	Detection Types: moving object detection, abandoned object detection, removed object detection, camera tampering detection, and passing detection
		DETECTION SETTINGS	Max. 15
		VOLUME	Volume Detection
	EVENT TRIGGER TYPE		External Device Input, Intelligent Function (Video), Intelligent Function (Volume), Timer
	IMAGE UPLOAD		FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5 MB, Frame Rate: Max. 10 fps
	EVENT NOTIFICATION		HTTP/SMTP (e-mail)
	ON-SCREEN DISPLAY		Available
	DAYLIGHT SAVING TIME		Available
INTERFACE	NETWORK TERMINAL		LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT

SPECIFICATIONS (cont.)

INTERFACE	EXTERNAL DEVICE I/O TERMINAL	Input x 2, Output x 2
	MEMORY CARD	SD, SDHC, SDXC Memory Card Compatible. Frame Rate: Max. 1 fps
OPERATING ENVIRONMENT	TEMPERATURE	-10°C – +50°C (+14°F – +122°F)
	HUMIDITY	5% – 85% (without condensation)
POWER SUPPLY	PoE	PoE power supply via LAN connector (IEEE802.3af compliant)
	AC ADAPTER	PA-V17 (100 – 240 V AC) (sold separately)
	EXTERNAL POWER SOURCE	24 V AC/12 V DC
POWER CONSUMPTION	WITH PoE	Max. approx. 9.2 W
	WITH PA-V17 AC ADAPTER	Max. approx. 10.7 W
	WITH DC	Max. approx. 8.6 W
	WITH AC	Max. approx. 8.8 W
OTHER	DIMENSIONS (DIAMETER X HEIGHT)	5.20 x 6.10 in. (132 x 155 mm)
	WEIGHT (APPROX)	2.514 lbs (1140 g)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter
4962B002	SS40-B-VB Black Ceiling Mount Cover

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
8222B001	RM-64 v2.0 Network Video Recording Software
8222B002	RM-25 v2.0 Network Video Recording Software
8222B003	RM-9 v2.0 Network Video Recording Software
8222B004	RM-Viewer v2.0 (1 License)
4973B001	RM-LITE-V Additional Viewer License

Brilliant Low-Light Performance

The lens on the VB-H41 has been treated with special coatings and engineered with new auto focus algorithms to allow the camera to provide high quality images even in the toughest lighting conditions (like starlight). The VB-H41 provides color video down to 0.4 lux and B/W to 0.02 lux.

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VB-M40 PTZ NETWORK CAMERA

Sophisticated PTZ Megapixel

Combining a compact, durable design with smooth movement, the Canon 1.3 Megapixel VB-M40 Pan/Tilt/Zoom IP security camera comes equipped with an impressive 20x optical zoom lens with 4x digital zoom, a 55.4º wide angle of view, and an advanced-algorithm Auto Focus for accurate focusing even in low-light, haze, and other challenging situations. The VB-M40's image quality is also aided by an Electronic Image Stabilization feature which minimizes blur that can be caused by vibration in the installation base. The VB-M40 is equipped with a 1/3-inch 1.3 Megapixel CMOS image sensor, Canon's advanced **DiG!C NET** processor for simultaneous transmission of high-quality 1280x960/30fps video in M-JPEG and bandwidth-saving H.264 codec. The VB-M40 is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection and alerts for Camera Tampering and Volume Detection. The VB-M40 also conforms to the ONVIF network-interface standard for integration convenience.

Key Features

- 20x Optical Zoom Lens with Auto Focus
- Genuine Canon 55.4º Wide Angle Lens
- ONVIF version 1.02 Conformant Product
- 1.3 Megapixel CMOS Sensor
- Brilliant Low-light Performance - color video down to 0.03 Lux* and B/W video down to 0.001 Lux*
- On-board Video Analytics
- H.264 and JPEG

Impressive 20x Optical Zoom with Auto Focus.

- **DiG!C NET** Processor
- Image Stabilizer

Recommended For:

- Hospitals/Medical Facilities
- Educational Institutions
- Construction Sites
- Transportation Centers
- Museums
- Web Conferencing

VB-M40

Canon

VB-M40

PRODUCT NAME: VB-M40 ITEM CODE: 4085B002 UPC CODE: 13803118018

SPECIFICATIONS

CAMERA UNIT	IMAGE SENSOR		1/3" 1.3 MegaPixel CMOS Sensor
	TOTAL NUMBER OF PIXELS		Approx. 1.3 Million Pixels
	SCANNING METHOD		Progressive Scan
	ZOOM		20x Optical Zoom (4x Digital Zoom)
	ANGLE OF VIEW		55.4° (W) / 2.8° (T)
	PAN ANGLE RANGE		340° (± 170°)
	TILT ANGLE RANGE		100° (- 90° to 10°)
	MOVEMENT RANGE		Pan: 1 – 150° / sec, Tilt: 1 – 150° / sec
	FOCAL LENGTH		F= 4.7 mm (W) / 94 mm (T)
	F-NUMBER		F1.6 (W) - 3.5 (T)
	DAY/ NIGHT MODE		Auto / Manual
	IR CUT FILTER		Yes
	MINIMUM ILLUMINATION	COLOR	0.03 Lux (F1.6, 1/8 sec., SSC ON)
		B & W	0.001 Lux (F1.6, 1/8 sec, SSC ON)
	FOCUS		Auto / One-shot AF / Manual / Infinity
	FOCUS RANGE		Day Mode: 1 ft / Night Mode: 3.3 ft
	AUTO EXPOSURE		Auto / Flickerless / Shutter Priority AE / Manual
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000 sec.
	WHITE BALANCE		Auto / Select Light Source (Warm Fluorescent, White Fluorescent, Daylight Fluorescent, Mercury Lamp, Sodium Lamp, Halogen Lamp) / Lock (One-shot WB) / Manual
	METERING MODE		Center-Weighted / Average / Spot
	EXPOSURE COMPENSATION		7 Levels
	SMART SHADE CONTROL		7 Levels
	IMAGE STABILIZER		Electronic (ON1 / ON2 / OFF)
CAMERA SERVER	VIDEO COMPRESSION METHOD		H.264 / JPEG
	OUTPUT IMAGE/VIDEO SIZE	H.264	1280 x 960, 640 x 480, 320 x 240
		MJPEG	1280 x 960, 640 x 480, 320 x 240, 160 x 120
	VIDEO QUALITY		MJPEG & H.264: 5 Levels
	FRAME RATE		H.264: 10 / 15 / 30 fps / MJPEG: 0.1 - 30 fps
	MAXIMUM FRAME RATE		H.264: 30 fps @ 1280 x 960 / MJPEG: 30 fps @ 1280 x 960
	SIMULTANEOUS CLIENT ACCESS		H.264: 10 clients / JPEG: 30 Clients
	AUDIO COMPRESSION METHOD		G.711 μ-LAW (64kbps)
	AUDIO COMMUNICATION		2-Way Full Duplex
	AUDIO PLAYBACK		Audio files can be played on event detection
	PROTOCOL	PV4	TCP / IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (client), DHCP (client), DNS (client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
		IPV6	TCP / IP, UDP, HTTP, FTP, SMTP (client), DNS (client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
	COMMUNICATION ENCRYPTION		HTTPS, IPsec
	CAMERA CONTROL USER TYPES		Administrator / Authorized Users / Guests
	PRESETS		20 Preset Positions
	VIEW RESTRICTION		Available
	PRIVACY MASK		Up to 8 locations
	CONNECTION RESTRICTION		Username / password, IP address restriction
	VIDEO ANALYTICS (Intelligent Function)		Image: Moving Object Detection / Removed Object Detection / Abandoned Object Detection / Camera Tampering Detection Field of Detection: Max. 15 places
			Sound: Volume Detection
	IMAGE UPLOAD		JPEG: FTP / HTTP / SMTP
	TEMPORARY STORAGE		Removable SD / SDHC card (up to 32gb), up to 1fps
	EVENT NOTIFICATION		HTTP / SMTP (e-mail)
	DISPLAY LANGUAGES		English / Japanese / French / Italian / German / Spanish
INTERFACE	NETWORK		1 RJ-45 (100Base-TX, Negotiation: auto/full/half, IEEE 802.3af)
	AUDIO TERMINALS	Input	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		Output	1 Mini-Jack Connector (Mono), LINE OUT
	EXTERNAL DEVICE I/O TERMINAL		Input x 2 / Output x 2
OPERATING TEMPERATURE	TEMPERATURE / HUMIDITY		14°~122° F / -10°~50° C / 5~85%RH (No Condensing)
POWER SUPPLY	POWER OVER ETHERNET		via LAN Connector (802.3af compliant)
	OPTIONAL AC ADAPTER		AC 100V - 240V (PA-V17)
	OPTIONAL EXTERNAL POWER		AC 24V / DC 12V
POWER CONSUMPTION	PoE		Approx. 9.8 W
	AC ADAPTER (PA-V17)		Approx. 12.5 W
	DC INPUT (DC 12V) / AC INPUT (AC 24V)		Approx. 10.6 W / Approx. 9.8 W
OTHER	BUNDLED SOFTWARE		VB Initial Setting Tool, RM-Lite
	DIMENSIONS		5.20 x 6.10 in. (132 x 155 mm)
	WEIGHT		2.535 lbs. (1.15 kg)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter
4963B001	DR40-C-VB Clear Indoor Recess Housing
4963B002	DR40-S-VB Smoked Indoor Recess Housing
4962B002	SS40-B-VB Black Ceiling Mount Cover

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
4973B001	RM-Lite-V Additional Installation License

Brilliant Low-Light Performance

The lens on the VB-M40 has been treated with special coatings and engineered with new auto focus algorithms to allow the camera to provide high quality images even in the toughest lighting conditions (like starlight). The VB-M40 provides color video down to 0.03 Lux and B/W video down to 0.001 Lux.

On-Board Video Analytics

The VB-M40 includes a variety of Video Analytics

- Moving Object Detection
- Removed Object Detection
- Abandoned Object Detection
- Volume Detection
- Camera Tampering Detection

The detection area, sensitivity and duration can be finely tuned, allowing for precise event detection by the camera, while advanced notification tools can notify predesignated parties, saving valuable response time.

The VB-M40 also includes a Privacy Mask Function which can be used to block selected areas of the camera's view. In sensitive locations where surveillance is required but particular areas can't be seen or recorded – such as door entry or ATM keypads, computer monitors or apartment windows – a Privacy Mask will hide that area while still allowing a full range of motion.

*Ratings based on F1.6, 1/8 second and Smart Shade Control on.

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VB-C60 PTZ NETWORK CAMERA

PTZ Zoom Leader

Canon's VB-C60 pan/tilt/zoom network camera features an ultra-long Genuine Canon 40x optical zoom lens with a 56º horizontal field of view, as well as Canon's advanced Auto Focus and Image Stabilization systems. Designed as a versatile, compact solution for high-quality, remote-video monitoring over IP, the VB-C60's wide panning range (± 170) and wide-angle lens provides coverage for a full 360º horizontal field-of-view. When viewing moving objects, images remain clear because of the camera's high-sensitivity progressive-scan CCD and Auto Focus system. The VB-C60 also features exceptional low light performance with color video down to 0.7 lux, and Canon's powerful **DiG!C NET** processor which enables the camera to simultaneously stream M-JPEG and MPEG-4 video encoding and transmission in high-quality VGA (640 x 480) resolution at a full 30 frames per second. The VB-C60 is also PoE (Power over Ethernet) IEEE 802.3af compliant which simplifies installation.

Key Features

- 40x Optical Zoom with 56º Wide Angle Lens
- Progressive Scan CCD
- Smart Shade Control
- Image Stabilizer
- Exceptional Low-light Performance
- Auto Day / Night Capability
- Flexible Camera Settings
- Motion Detection with Subject Auto-Tracking
- Advanced **DiG!C NET** Processor

Progressive-scan CCD allows for the capture of clear, well-defined high-quality video of moving objects.

- IEEE 802.3af compliant Power over Ethernet (PoE)

Recommended For:

- Hospitals
- Educational Institutions
- Construction Sites
- Mass Transportation Centers
- Government

VB-C60

Canon

VB-C60

PRODUCT NAME: VB-C60 ITEM CODE: 2812B015 UPC CODE: 013803118063

SPECIFICATIONS

CCD IMAGE SENSOR		1/4 in. CCD (Primary Color Filter)
NUMBER OF PIXELS		310,000 Effective Pixels
SCANNING METHOD		Progressive
LENS	ZOOM RATIO	40x Optical with Auto Focus (4x Digital)
	FOCAL LENGTH / F-STOP	f= 3.4 mm (W)~136.0 mm (T) / F1.6 (W)~F5.6 (T)
ANGLE OF VIEW	HORIZONTAL	55.8° (W)~1.5° (T)
	VERTICAL	43.3° (W)~1.1° (T)
DAY / NIGHT MODE		Auto / Manual
IR CUT FILTER		Yes
MINIMUM ILLUMINATION	COLOR	0.7 lux @ 1/30 second Shutter Speed
	BLACK & WHITE	0.2 lux @ 1/30 second Shutter Speed
FOCUS		Auto / One-shot AF / Manual Fixed Focus at Infinity (for dome use)
FOCUS RANGE	DAY MODE	(W) 11.8in.~∞ / (T) 59in.~∞
	NIGHT MODE	(W) 19.7in.~∞ / (T) 70.9in.~∞
SHUTTER SPEED		1/1~1/8000 second
WHITE BALANCE		Auto / One-shot / Preset / Manual
OPTICAL MEASUREMENT SYSTEM		Center-weighted / Average / Spot
EXPOSURE COMPENSATION		7 Levels
SMART SHADE CONTROL		Yes
IMAGE STABILIZER		Electric (ON1 / ON2 / OFF)
PAN ANGLE RANGE		340° (+ / -170°)
TILT ANGLE RANGE	UPRIGHT / CEILING-MOUNTED	115° (-25°~90°) / 115° (-90°~25°)
MOVING RATE		PAN / TILT: Maximum 150° / second
VIDEO COMPRESSION METHOD		M-JPEG / MPEG-4
OUTPUT IMAGE / VIDEO SIZE		JPEG: 640x480 / 320x240 / 160x120 MPEG-4: 640x480 / 320x240
FRAME RATE		M-JPEG: 0.1~30fps MPEG-4: 30 / 15 / 10 fps
MAXIMUM FRAME RATE		M-JPEG: 30 fps (640x480) MPEG-4: 30 fps (640x480)
SIMULTANEOUS CLIENT ACCESS		ACCESS M-JPEG: 30 clients MPEG-4: 10 clients
AUDIO COMMUNICATION		Full Duplex
IPSEC (Communication Encryption)		Available
PRESETS		Maximum 20 Positions
MOTION DETECTION		Yes, up to 4 detection areas can be set
JPEG IMAGE UPLOAD		FTP / HTTP / SMTP
EVENT NOTIFICATION		HTTP / SMTP
NETWORK		LAN x1 (RJ-45, 100Base-TX), IEEE 802.3af
AUDIO TERMINALS	INPUT	1-Mini-Jack Connector (Monaural) LINE IN or MIC IN
	OUTPUT	1-Mini-Jack Connector (Monaural) LINE OUT
EXTERNAL DEVICE I / O TERMINAL		Input x 2, Output x 2
OPERATING ENVIRONMENT	TEMPERATURE / HUMIDITY	14° to 122° F (-10°C to 50°C) / 20~85% RH (No Condensing)
POWER SUPPLY	PoE	Via LAN Connector (IEEE802.af compliant)
	OPTIONAL AC ADAPTER	AC 100V - 240V (PA-V17)
	OPTIONAL EXTERNAL POWER	AC 24V / DC 12V (non-polar)
POWER CONSUMPTION	WITH PoE	Maximum approximately 10W
	WITH OPTIONAL AC ADAPTER	Maximum approximately 13W
BUNDLED SOFTWARE	WEB VIEWER	Built-In (no Java applet necessary)
	VK-LITE	Free 4-camera license included
WEIGHT		Approximately 1.85 lbs. (Approximately 215 g)
DIMENSIONS (W x D x H)		5.59 x 5.59 x 5.87 in. (142 mm x 142 mm x 149 mm)

OPTIONAL ACCESSORIES

	Item Code No.	Description
OPTIONAL SOFTWARE	4075B001	VK-64 v2.2 Network Video Recording Software
	4075B002	VK-16 v2.2 Network Video Recording Software
	4075B003	VK-Viewer v2.2 License for VK-64 / 16 Viewer
	4075B004	VK-Viewer v2.2 Licenses for VK-64 / 16 Viewer
	3331B001	VK-Lite 1 License for VK-Lite
	2823B001	VB-RD51S-S Indoor Recessed Dome Housing (Smoked)
	2823B002	VB-RD51S-C Indoor Recessed Dome Housing (Clear)
	3121B002	SS60-B-VB Ceiling Mount Cover
	2245B001	PA-V17 AC Adapter

Image Stabilizer

The VB-C60's Image Stabilizer feature effectively works to compensate for image blur caused by camera vibrations or movement. This is useful against building vibration or strong winds, like when the camera is installed on an outdoor pole.

OFF

ON

56º Lens with 40x Optical Zoom

The VB-C60 features the industry's most powerful 40x optical zoom and a 4x digital zoom. The camera's advanced auto focus system achieves smooth, immediate focus. Thanks to Canon's optical technology, the VB-C60 ultra-long zoom is able to maintain edge-to-edge tonal accuracy and clarity through the entire zoom range. The VB-C60 also features a genuine Canon wide-angle lens, with a 56º horizontal field of view.

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VB-C300 PTZ NETWORK CAMERA

Wide Angle PTZ

The VB-C300 PTZ (pan/tilt/zoom) network camera is designed for observing a large area with a single camera. Featuring a genuine Canon 2.4x Optical Zoom Lens (and 4x Digital Zoom), the VB-C300 provides a very wide 70º wide angle lens. Canon's advanced lens design virtually eliminates the "fish-eye" distortion typical of extreme wide-angle lenses, keeping the camera's image in sharp detail. Panning bi-directionally at ± 170°, the VB-C300 actually delivers a total viewing angle that exceeds 360º. Additional Canon high-tech imaging innovations provide even more user benefits. These include a progressive-scan 310,000-effective pixel CCD that helps deliver crisp, well-defined images of even rapidly moving objects, and exceptional low-light performance with color video down to 1 lux. Additional features on the VB-C300 include Simultaneous Two-way Audio, PoE compliance, and an optional compact ceiling dome to accommodate a wide variety of applications.

Key Features

- 70° Wide Angle Lens with Auto-Focus
- Panning Capability: Over 360º Coverage
- High Sensitivity Progressive Scan
- Exceptional Low Light Performance
- Auto Day / Night Mode
- M-JPEG Encoding
- Power over Ethernet (PoE)
- Simultaneous Two-Way Audio

The VB-C300 is an excellent PTZ IP security camera for observing a wide area within a compact space.

Recommended For:

- Educational Institutions
- Financial Institutions
- Guard/Security Booths
- Retail Stores
- Lobbies and Entrances
- Manufacturing Facilities

VB-C300

Canon

VB-C300

PRODUCT NAME: VB-C300 ITEM CODE: 1867B002 UPC CODE: 013803078046

SPECIFICATIONS

VIDEO SIGNAL		Conforms to NTSC
IMAGE SENSOR		1/4-inch CCD (primary color filter)
TOTAL NUMBER OF PIXELS		680,000 (effective 310,000)
SCANNING METHOD		Progressive Scan
MINIMUM ILLUMINATION	COLOR VIDEO	1 lux (F2.0, 1/30 sec.)
	B & W VIDEO	0.25 lux (F2.0, 1/30 sec.)
DAY / NIGHT MODE		Auto / Manual
FOCUS RANGE	DAY MODE	11.8 in.
	NIGHT MODE	23.6 in.
LENS	ZOOM RATIO	2.4x Optical Zoom
	FOCAL LENGTH / F-STOP	f= 3.0~7.2mm / F2.0 (W)~F3.4 (T)
VIEWING ANGLE	HORIZONTAL	70.8° (W) to 29.6° (T)
	VERTICAL	51.6° (W) to 22.1° (T)
PAN ANGLE RANGE		340° (+ / - 170°)
TILT ANGLE RANGE		Upright Position= 115° (-25° to 90°), Inverted= 115° (-90° to 25°)
MOVING SPEED		Pan= Max. 90° / sec., Tilt= Max. 70° / sec.
INFRARED CUT FILTER		Power driven insertion / removal (Normal mode / Night Mode)
WHITE BALANCE		TTL system: Auto / Manual preset / One-shot
PROTOCOLS		HTTP, DHCP, WV-HTTP (from Canon)
VIDEO COMPRESSION METHOD		Motion-JPEG compression (movie) JPEG (still pictures)
VIDEO COMPRESSION RATE		NTSC: 0.1fps to 30fps
AUDIO COMPRESSION METHOD		G.711μ-law (64kbps) full duplex
OUTPUT VIDEO SIZE		640 X 480, 320 X 240, 160 X 120
CONNECTION RESTRICTIONS		Access control (password), video connection, number of concurrent connections (maximum of 15)
MAIN UNIT INTERFACE	NETWORK	LAN x 1 (RJ-45, 100 Base-TX / 10Base T auto negotiation)
	AUDIO IN	Connection to a microphone with amp and LINE input x 1
	AUDIO OUT	Connection to a speaker with amp x1
	VIDEO OUT	3.5 monaural, mini-jack
		Video composite signal output from network camera (for maintenance) x 1
	EXTERNAL DEVICE I / O	Input x 2, Output x 1
DIMENSIONS (H x W x D)		Approx. 4.79 x 5.19 x 5.12 in. (Main unit only, excluding rubber feet and ceiling bracket)
WEIGHT		Approx. 1.85 lbs.
OPERATING ENVIRONMENT		Temperature 0° - 40° C, humidity 20-85%RH (condensation free)
POWER		Capable of PoE power supply via LAN connector (in accordance with IEEE 802.3af compliant) 24VAC / 12VDC, (using the supplied connector, no polarity) AC Adapter for 100VAC to 240VAC (PA-V17)
POWER CONSUMPTION		Max: Approx. 10W (PoE), Max: Approx. 13W (When the AC Adapter is used)

OPTIONAL ACCESSORIES

AC ADAPTER

	Description
MODEL	PA-V17
INPUT	100-240 VAC 50 / 60 Hz
OUTPUT	13 VDC 1.8 A (max.) Temperature: - 10° C to 35° C Humidity: 20 to 85%RH (condensation free) When using the network camera 13 VDC 1.0 A (max.) Temperature: - 10° C to 45° C Humidity: 20 to 85%RH (condensation free)
POLARITY	Exterior (-) Interior (+)
DIMENSIONS	2.28 x 4.65 x 0.98 in. (58 x 188 x 25 mm) (W x D x H) (excluding attachment)
WEIGHT	Approx. 0.474 lb (215 g) (excluding cables)

INDOOR DOME HOUSING

	Description
MODEL	VB-RD41S-C / VB-RD41S-S
TYPE	Clear / Smoke Type
USING ENVIRONMENT IN COMBINATION WITH THE CAMERA	Temperature 0 - 45° C Humidity 20 - 85%RH (condensation free)
DIMENSIONS	7.09 (4.43: dome) x 3.21 in. (H) Including Ceiling Portion: 5.77 in.
WEIGHT	Approx. 0.820 lb (372 g) (excluding cables)

Easy Setup and Installation

The VB-C300 is also versatile in the ways it can be installed. It can be placed in an upright position, or mounted on the ceiling, either in the open or in an optional indoor dome recessed housing available in clear or smoked models.

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OPTIONAL ACCESSORIES

	Item Code. NO.	Description
SOFTWARE	4075B001	VK-64 v2.2 Network Video Monitoring & Recording Software
	4075B002	VK-16 v2.2 Network Video Monitoring & Recording Software
	4075B003	VK-Viewer: 1 License for VK-64/16
	4075B004	VK-Viewer: 5 Licenses for VK-64/16
OTHERS	2112B001	VB-RD41S-S Indoor Dome Housing Smoke
	2112B004	VB-RD41S-C Indoor Dome Housing Clear
	2245B001	PA-V17 AC Adapter

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For more info:
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VB-H610VE
FULL HD VANDAL RESISTANT FIXED DOME IP SECURITY CAMERA

Rugged Full HD IP Camera

The VB-H610VE Fixed Vandal-Resistant Full HD IP Security Camera performs both indoors or out. Housed in a clear polycarbonate dome mounted to an aluminum body, the camera's enclosure can absorb violent impacts and it has a dust and water-resistance rating of IP66 which protects against heavy water sprays from any angle. Inside the enclosure, the VB-H610VE lens is mounted in a damping mechanism to protect it against heavy blows. An optional heater allows the camera to be used in temperatures down to minus 22º F. The VB-H610VE also features a built-in Genuine Canon 111º wide-angle 3x optical zoom lens for clear, high-quality images, **DiG!C DV III** image processor, and the new Canon **DiG!C NET II** network video processor for full 1920 x 1080 HD up to 30 fps in both H.264 and M-JPEG. ONVIF (Open Network Video Interface Forum) Profile S conformance ensures compatibility with other ONVIF-compliant third-party products. A unique Remote Adjustment Function enables users to change the angle of view (including pan, tilt, rotation, zoom, and focus) of the camera from any Internet-connected PC, thereby eliminating the time and expense of on-site adjustments involving labor, transportation, and equipment. The VB-H610VE is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection, Camera Tampering Detection, Volume Level Detection, and a new Passing (or "tripwire") Detection.

Key Features

- Full HD CMOS Sensor
- Vandal Resistant Dome (with IP66 Rating)
- Genuine Canon 111º Wide Angle Lens
- Brilliant Low-Light Performance
- On-Board Video Analytics
- ONVIF Profile S Conformant
- **DiG!C DV III** image processor
- **DiG!C NET II** network video processor transmits H.264 and M-JPEG simultaneously at 1920 x 1080 up to 30 fps

- Canon's Unique Remote Adjustment Function enables users to change the angle of view of the camera after installation.

Recommended For:

- Correctional Facilities
- Public Transportation Centers
- Financial Institutions
- Educational Institutions
- Higher Crime Areas

VB-H610VE

Canon

VB-H610VE Full HD Vandal Resistant Fixed Dome IP Security Camera

PRODUCT NAME: VB-H610VE ITEM CODE: 6813B001 UPC CODE: 013803157383

SPECIFICATIONS

CAMERA	IMAGE SENSOR		1/3 type CMOS (primary color filter)
	NUMBER OF EFFECTIVE PIXELS		Approx. 2.1 million pixels
	SCANNING METHOD		Progressive
	LENS		3x optical (4x digital) zoom lens (electric drive)
	FOCAL LENGTH		2.8 (W) – 8.4mm (T)
	F-NUMBER		F1.2 (W) – F2.0 (T)
	VIEWING ANGLE		Horizontal: 111° (W) – 36.5° (T) Vertical: 60.1° (W) – 20.5° (T)
	DAY/NIGHT SWITCH		Auto/Manual
	MIN. SUBJECT ILLUMINATION	Day Mode (color)	0.3 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.02 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.008 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
		Night Mode (monochrome)	0.015 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.001 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.0005 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
	FOCUS		One-shot AF/Manual/Fixed at infinity
	SHOOTING DISTANCE (FROM FRONT OF LENS)		Day Mode: 0.3m (12 in.) – infinity Night Mode: 1.0m (3.3 ft.) – infinity
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000 sec.
	EXPOSURE		Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/ Manual (Shutter Speed, Aperture, Gain)
	WHITE BALANCE		Auto/Light Source (Daylight Fluorescent/White Fluorescent/ Warm Fluorescent/ Mercury Lamp/Sodium Lamp/Halogen Lamp)/Lock (One-shot WB)/Manual
	METERING MODE		Center-Weighted/Average/Spot
	EXPOSURE COMPENSATION		9 levels
	SMART SHADE CONTROL		7 levels (increases the brightness of shaded subjects in a video)
	AGC LIMIT		5 levels
	PAN ANGLE RANGE		350° (±175°)
	TILT ANGLE RANGE		150° (±75°)
	ROTATION ANGLE RANGE		350° (±175°)
	MOVING SPEED		Pan: 19.2°/sec., Tilt: 14.2°/sec., Rotation: 43.7°/sec. – When the Camera Angle Setting Tool is used
SERVER	VIDEO COMPRESSION METHOD		M-JPEG, H.264
	VIDEO SIZE		M-JPEG: 1920 x 1080, 960 x 540, 480 x 270, 320 x 240 H.264: 1920 x 1080, 960 x 540, 480 x 270
	VIDEO QUALITY		M-JPEG, H.264: 5 levels
	FRAME RATE		M-JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps
	MAX. FRAME RATE		1920 x 1080: 30 fps
	I-FRAME INTERVAL		0.5/1/1.5/2/3/4/5 sec
	SIMULTANEOUS CLIENT ACCESS		Max. 30 Clients + 1 Admin Client – H.264: Max. 10 Clients
	CAMERA CONTROL		Administrator, Authorized user, Guest user (level of control varies depending on user) Max. 50 user names and passwords registered for authorized users.
	ACCESS CONTROL		User authority (user name and password), Host Access Restrictions (IPv4, IPv6)
	ENCRYPTED COMMUNICATIONS		SSL/TLS, IPsec (Auto Key Exchange/Manual)
	PROTOCOL	IPv4	TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (Client), DHCP (Client), DNS (Client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
		IPv6	TCP/IP, UDP, HTTP, FTP, SMTP (Client), DHCPv6 (Client), DNS (Client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
	AUTOIP		Available
	AUDIO COMPRESSION METHOD		G.711 μ-law (64 kbps)
	AUDIO COMMUNICATION METHOD		Full-duplex (two-way) – Echo cancellation function compliant Sound Transfer Protocol by Canon
	AUDIO FILE PLAYBACK		Available (audio files can be played back when an event is triggered by the intelligent function or external device input.) – A separately-sold amplifier speaker is necessary
	PRIVACY MASK		Number of registration: Max. 8 places, Number of mask colors: 1 (select from 9 colors)
	PRESET		Max. 20 positions (Digital) (Preset Tour capable)
	INTELLIGENT FUNCTION	VIDEO	Detection Types: moving object detection, abandoned object detection, removed object detection, camera tampering detection, and passing detection
		DETECTION SETTINGS	Max. 15
		VOLUME	Volume Detection
	EVENT TRIGGER TYPE		External Device Input, Intelligent Function (Video), Intelligent Function (Volume), Timer
	IMAGE UPLOAD		FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5 MB, Frame Rate: Max. 10 fps
	EVENT NOTIFICATION		HTTP/SMTP (e-mail)
	IMAGE CROPPING FUNCTION		Digital PTZ Cropping sizes: 640 x 360, 512 x 288, 384 x 216, 256 x 144, 128 x 72
INTERFACE	NETWORK TERMINAL		LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT

SPECIFICATIONS (cont.)

INTERFACE	EXTERNAL DEVICE I/O TERMINAL	Input x 2, Output x 2
	MEMORY CARD	SD, SDHC, SDXC Memory Card Compatible. Frame Rate: Max. 1 fps
OPERATING ENVIRONMENT	TEMPERATURE	-10°C – +50°C (+14°F – +122°F)
	HUMIDITY	5% – 85% (without condensation)
POWER SUPPLY	PoE	PoE power supply via LAN connector (IEEE802.3af compliant)
	AC ADAPTER	PA-V17 (100 – 240 V AC) (sold separately)
	EXTERNAL POWER SOURCE	24 V AC/12 V DC
POWER CONSUMPTION	WITH PoE	Max. approx. 8.4 W
	WITH PA-V17 AC ADAPTER	Max. approx. 10.7 W
	WITH DC	Max. approx. 9.0 W
	WITH AC	Max. approx. 8.1 W
OTHER	DIMENSIONS (DIAMETER X HEIGHT)	7.09 x 5.79 in. (180 x 147 mm)
	WEIGHT	4.24 lbs (1920 g)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
5004B001	PS600-VB Junction Box Mounting Kit
5091B001	SR600-VB Recessed Mounting Kit
5092B001	HU600-VB Heater Unit
2245B001	PA-V17 AC Adapter

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
8222B001	RM-64 v2.0 Network Video Recording Software
8222B002	RM-25 v2.0 Network Video Recording Software
8222B003	RM-9 v2.0 Network Video Recording Software
8222B004	RM-Viewer v2.0 (1 License)
4973B001	RM-Lite-V Additional Viewer License

ONVIF Conformant Product

The VB-H610VE is compatible with the ONVIF (Open Network Video Interface Forum) Profile S protocol, a standard communication protocol. It is now easier to integrate the VB-H610VE with other ONVIF compliant third party products. The VB-H610VE is also backwards compatible with earlier versions of the ONVIF protocol.

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VB-M600VE
VANDAL RESISTANT FIXED NETWORK DOME CAMERA

Tough Outdoor Megapixel Security Camera

The Canon VB-M600VE is a 1.3 Megapixel vandal resistant fixed network dome camera that provides excellent low-light performance and is designed for areas where it may be subject to abuse. The VB-M600VE is housed in a polycarbonate/aluminum dome that can absorb impacts from all angles. The dome has a dust and water-resistance rating of IP66 that can protect against heavy water sprays from any angle. Inside the dome the VB-M600VE lens and camera mechanism is mounted in a damping mechanism to protect it against impacts. The VB-M600VE is equipped with a 1/3-inch 1.3 Megapixel CMOS image sensor, and Canon's advanced DiG!C NET processor for simultaneous transmission of high-quality 1280x960/30fps video in M-JPEG and bandwidth-saving H.264 codec. The VB-M600VE is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection and alerts for Camera Tampering and Volume Detection. The VB-M600VE is installation-friendly as it features Canon's unique Easy Setup PTRZ Tool which utilizes special motors to adjust the Pan/Tilt/Rotation angles and Zoom/Focus after installation, and it conforms to the ONVIF network-interoperability standard for simplified integration.

Key Features

- Genuine Canon 101.2º Wide Angle Lens
- ONVIF version 1.02 Conformant Product
- IP66 Outdoor Rated
- Vandal Resistant - absorbs impacts from all angles
- Brilliant Low-light Performance - color video down to 0.018 Lux* and B/W down to 0.001 Lux*
- 1.3 Megapixel CMOS Sensor
- Canon's Unique Easy Setup PTRZ Tool
- On-board Video Analytics
- H.264 and JPEG
- DiG!C NET Processor
- Smart Shade Control

VB-M600VE provides excellent low-light performance.

Recommended For:

- Educational Institutions
- Financial Institutions
- Train Stations/Bus Stops
- Correctional Facilities
- Shopping Malls
- Elevators

VB-M600VE

Canon

VB-M600VE

PRODUCT NAME: VB-M600VE ITEM CODE: 4960B001 UPC CODE: 13803131529

SPECIFICATIONS

CAMERA UNIT	IMAGE SENSOR		1/3" 1.3 MegaPixel CMOS Sensor
	TOTAL NUMBER OF PIXELS		Approx. 1.3 Million Pixels
	SCANNING METHOD		Progressive Scan
	ZOOM		3x Optical Zoom
	FOCAL LENGTH / F-STOP		F= 2.8 (W) – 8.4 mm (T) / F1.2 - 2.0
	ANGLE OF VIEW		101.2° (W) / 33.7° (T)
	ROTATION RANGE		350° (± 175°)
	PAN ANGLE RANGE		350° (± 175°)
	TILT ANGLE RANGE		150° (± 75°)
	MOVING RATE		Pan: 19.2°/Sec, Tilt: 14.2°/Sec, Rotate: 43.7°/Sec
	DAY/ NIGHT MODE		Auto / Manual
	IR CUT FILTER		Yes
	MINIMUM ILLUMINATION	COLOR	0.018*
		B & W	0.001*
	FOCUS		One-shot AF / Manual / Fixed at Infinity
	FOCUS RANGE		Day Mode: 1 Ft. / Night Mode: 3.3 Ft.
	AUTO EXPOSURE		Auto / Flickerless / Shutter Priority AE / Manual
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000 sec.
	WHITE BALANCE		Auto / Select Light Source (Warm Fluorescent, White Fluorescent, Daylight Fluorescent, Mercury Lamp, Sodium Lamp, Halogen Lamp) / Lock (One-shot WB) / Manual
	METERING MODE		Center-Weighted / Average / Spot
	EXPOSURE COMPENSATION		7 Levels
CAMERA SERVER	SMART SHADE CONTROL		7 Levels
	VIDEO COMPRESSION METHOD		H.264 / MJPEG
	OUTPUT IMAGE/VIDEO SIZE	H.264	1280 x 960, 640 x 480, 320 x 240
		MJPEG	1280 x 960, 640 x 480, 320 x 240, 160 x 120
	VIDEO QUALITY		MJPEG / H.264: 5 Levels
	FRAME RATE		H.264: 10 / 15 / 30 fps / MJPEG: 0.1 - 30 fps
	MAXIMUM FRAME RATE		H.264: 30 fps @ 1280 x 960 / MJPEG: 30 fps @ 1280 x 960
	SIMULTANEOUS CLIENT ACCESS		H.264: 10 clients / JPEG: 30 Clients
	AUDIO COMPRESSION METHOD		G.711 μ-LAW (64kbps)
	AUDIO COMMUNICATION		2-Way Full Duplex
	AUDIO PLAYBACK		Audio files can be played on event detection
	PROTOCOL	Pv4	TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (client), DHCP (client), DNS (client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
		IPv6	TCP/IP, UDP, HTTP, FTP, SMTP (client), DNS (client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
	COMMUNICATION ENCRYPTION		HTTPS, IPsec
	CAMERA CONTROL USER TYPES		Administrator / Authorized Users / Guests
	VIEW RESTRICTION		Available
	PRIVACY MASK		Up to 8 locations
	CONNECTION RESTRICTION		Username / password, IP address restriction
	VIDEO ANALYTICS (Intelligent Function)		Image: Moving Object Detection / Removed Object Detection / Abandoned Object Detection / Camera Tampering Detection Field of Detection: Max. 15 places
			Sound: Volume Detection
	IMAGE UPLOAD		JPEG: FTP / HTTP / SMTP
	TEMPORARY STORAGE		Removable SD / SDHC card (up to 32gb), up to 1fps
	EVENT NOTIFICATION		HTTP / SMTP (e-mail)
INTERFACE	NETWORK		1 RJ-45 (100Base-TX, Negotiation: auto / full / half, IEEE 802.3af
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN / MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT
	EXTERNAL DEVICE I / O TERMINAL		Input: x 2, Output: x 2
OPERATING TEMPERATURE	TEMPERATURE / HUMIDITY		14°~122° F / -10°~50° C / 5~85%RH (No Condensing) -22°~122° F / -30°~50° C / 5~85%RH (w/ opt. Heater)
POWER SUPPLY	POWER OVER ETHERNET		via LAN Connector (IEEE802.3af compliant)
	OPTIONAL AC ADAPTER		AC 100V-240V (PA-V17)
	OPTIONAL EXTERNAL POWER		AC 24V / DC 12V
POWER CONSUMPTION	WITH POWER OVER ETHERNET		Approx. 8.6 Watts
	WITH OPTIONAL AC ADAPTER		Approx. 10.9 Watts
	DC INPUT (DC 12V)		Approx. 9 Watts
	AC INPUT (AC 24V)		Approx. 8.3 Watts
	WITH OPTIONAL HEATER UNIT (24V AC needed)		Approx. 18.9 Watts
ENCLOSURE	DIMENSIONS		7.09 x 5.79 in. (180 x 147 mm)
	WEIGHT		4.22 lbs (1910 g)
	INGRESS RESISTANCE RATING		IP66
POWER SUPPLY	BUNDLED SOFTWARE		VB Initial Setting Tool, RM-Lite

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter
5004B001	PS600-VB Junction Box Mounting Kit
5091B001	SR600-VB Recess Mounting Kit
5092B001	HU600-VB Heater Unit (needs 24V AC)

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
4973B001	RM-Lite-V (Aiddtional Installation License)

Impact and Weather Resistance

Impact Resistance
The VB-M600VE contains a new damping mechanism that allows the lens to move 15mm inside the camera body. This, with a vandal resistant enclosure, allows for the camera to absorb impacts.

Water Resistant
The VB-M600VE is both dust and water resistant with an Ingress Resistant Rating of IP66, which can keep out heavy sprays of water at any angle.

Cold Weather Resistant
The VB-M600VE can be purchased with an optional heater that allows for camera operation down to -22° F (needs AC 24V).

ONVIF Conformant Product

The VB-M600VE is compatible with the ONVIF (Open Network Video Interface Forum) version 1.02 protocol, a standard communication protocol. It is now easier to integrate the VB-M600VE with other ONVIF compliant 3rd party products. The VB-M600VE is also backwards compatible with earlier versions of the ONVIF protocol.

*Ratings based on F1.2, 1/8 second and Smart Shade Control on.

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VB-H610D FULL HD FIXED DOME IP SECURITY CAMERA

Full HD Dome Security Camera

Featuring a built-in Genuine Canon wide-angle 3x optical zoom lens with an ultra-wide 111° angle of view, this Full HD Dome IP Security Camera is ideal for use in areas with space restrictions such as stairways, narrow halls, and elevators. Integrating an advanced 16:9 CMOS sensor, **DiG!C DV III** image processor, and the new Canon **DiG!C NET II** network video processor for full 1920 x 1080 HD up to 30 fps in both H.264 and M-JPEG, the VB-H610D also provides ONVIF (Open Network Video Interface Forum) Profile S conformance for compatibility with other ONVIF-compliant third-party devices. A unique Remote Adjustment Function enables users to change the angle of view (including pan, tilt, rotation, zoom, and focus) of the camera from any Internet-connected PC, thereby eliminating the time and expense of on-site adjustments involving labor, transportation, and equipment. The VB-H610D is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection, Camera Tampering Detection, Volume Level Detection, and a new Passing (or "tripwire") Detection.

Key Features

- Full HD CMOS Sensor
- Genuine Canon 111° Wide Angle Lens
- Brilliant Low-Light Performance
- On-Board Video Analytics
- ONVIF Profile S Conformant
- **DiG!C DV III** image processor
- **DiG!C NET II** network video processor transmits H.264 and M-JPEG simultaneously at 1920 x 1080 up to 30 fps

- Canon's Unique Remote Adjustment Function enables users to change the angle of view of the camera after installation.

Recommended For:

- Financial Institutions
- Industrial Plants and Utilities
- Military and Government Agencies
- Airports and Transportation Centers
- Casino/Gaming Industry
- Commercial Offices/Retail Locations

VB-H610D

Canon

VB-H610D FULL HD FIXED DOME IP SECURITY CAMERA

PRODUCT NAME: VB-H610D ITEM CODE: 6814B001 UPC CODE: 013803157390

SPECIFICATIONS

CAMERA	IMAGE SENSOR		1/3 type CMOS (primary color filter)
	NUMBER OF EFFECTIVE PIXELS		Approx. 2.1 million pixels
	SCANNING METHOD		Progressive
	LENS		3x optical (4x digital) zoom lens (electric drive)
	FOCAL LENGTH		2.8 (W) – 8.4mm (T)
	F-NUMBER		F1.2 (W) – F2.0 (T)
	VIEWING ANGLE		Horizontal: 111° (W) – 36.5° (T) Vertical: 60.1° (W) – 20.5° (T)
	DAY/NIGHT SWITCH		Auto/Manual
	MIN. SUBJECT ILLUMINATION	Day Mode (color)	0.3 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.02 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.008 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
		Night Mode (monochrome)	0.015 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.001 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.0005 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
	FOCUS		One-shot AF/Manual/Fixed at infinity
	SHOOTING DISTANCE (FROM FRONT OF LENS)		Day Mode: 0.3m (12 in.) – infinity Night Mode: 1.0m (3.3 ft.) – infinity
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000 sec.
	EXPOSURE		Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/ Manual (Shutter Speed, Aperture, Gain)
	WHITE BALANCE		Auto/Light Source (Fluorescent/White Fluorescent/ Warm Fluorescent/ Mercury Lamp/Sodium Lamp/Halogen Lamp)/Lock (One-shot WB)/Manual
	METERING MODE		Center-Weighted/Average/Spot
	EXPOSURE COMPENSATION		9 levels
	SMART SHADE CONTROL		7 levels (increases the brightness of shaded subjects in a video)
	AGC LIMIT		5 levels
	PAN ANGLE RANGE		350° (±175°)
	TILT ANGLE RANGE		150° (±75°)
	ROTATION ANGLE RANGE		350° (±175°)
	MOVING SPEED		Pan: 19.2°/sec., Tilt: 14.2°/sec., Rotation: 43.7°/sec. – When the Camera Angle Setting Tool is used
SERVER	VIDEO COMPRESSION METHOD		M-JPEG, H.264
	VIDEO SIZE		M-JPEG: 1920 x 1080, 960 x 540, 480 x 270, 320 x 240 H.264: 1920 x 1080, 960 x 540, 480 x 270
	VIDEO QUALITY		M-JPEG, H.264: 5 levels
	FRAME RATE		M-JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps
	MAX. FRAME RATE		1920 x 1080: 30 fps
	I-FRAME INTERVAL		0.5/1/1.5/2/3/4/5 sec
	SIMULTANEOUS CLIENT ACCESS		Max. 30 Clients + 1 Admin Client – H.264: Max. 10 Clients
	CAMERA CONTROL		Administrator, Authorized user, Guest user (level of control varies depending on user) Max. 50 user names and passwords registered for authorized users.
	ACCESS CONTROL		User authority (user name and password), Host Access Restrictions (IPv4, IPv6)
	ENCRYPTED COMMUNICATIONS		SSL/TLS, IPsec (Auto Key Exchange/Manual)
	PROTOCOL	IPv4	TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (Client), DHCP (Client), DNS (Client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
		IPv6	TCP/IP, UDP, HTTP, FTP, SMTP (Client), DHCPv6 (Client), DNS (Client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
	AUTOIP		Available
	AUDIO COMPRESSION METHOD		G.711 μ-law (64 kbps)
	AUDIO COMMUNICATION METHOD		Full-duplex (two-way) – Echo cancellation function compliant Sound Transfer Protocol by Canon
	AUDIO FILE PLAYBACK		Available (audio files can be played back when an event is triggered by the intelligent function or external device input.) – A separately-sold amplifier speaker is necessary
	PRIVACY MASK		Number of registration: Max. 8 places, Number of mask colors: 1 (select from 9 colors)
	PRESET		Max. 20 positions (Digital) (Preset Tour capable)
	INTELLIGENT FUNCTION	VIDEO	Detection Types: moving object detection, abandoned object detection, removed object detection, camera tampering detection, and passing detection
		DETECTION SETTINGS	Max. 15
		VOLUME	Volume Detection
	EVENT TRIGGER TYPE		External Device Input, Intelligent Function (Video), Intelligent Function (Volume), Timer
	IMAGE UPLOAD		FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5 MB, Frame Rate: Max. 10 fps
	EVENT NOTIFICATION		HTTP/SMTP (e-mail)
	IMAGE CROPPING FUNCTION		Digital PTZ Cropping sizes: 640 x 360, 512 x 288, 384 x 216, 256 x 144, 128 x 72
INTERFACE	NETWORK TERMINAL		LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT

SPECIFICATIONS (cont.)

INTERFACE	EXTERNAL DEVICE I/O TERMINAL	Input x 2, Output x 2
	MEMORY CARD	SD, SDHC, SDXC Memory Card Compatible. Frame Rate: Max. 1 fps
OPERATING ENVIRONMENT	TEMPERATURE	-10°C – +50°C (+14°F – +122°F)
	HUMIDITY	5% – 85% (without condensation)
POWER SUPPLY	PoE	PoE power supply via LAN connector (IEEE802.3af compliant)
	AC ADAPTER	PA-V17 (100 – 240 V AC) (sold separately)
	EXTERNAL POWER SOURCE	24 V AC/12 V DC
POWER CONSUMPTION	WITH PoE	Max. approx. 7.8 W
	WITH PA-V17 AC ADAPTER	Max. approx. 10.2 W
	WITH DC	Max. approx. 8.3 W
	WITH AC	Max. approx. 7.5 W
OTHER	DIMENSIONS (DIAMETER X HEIGHT)	7.32 x 5.51 in. (186 x 140 mm)
	WEIGHT	2.65 lbs (1200 g)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
5004B001	PS600-VB Junction Box Mounting Kit
5091B001	SR600-VB Recessed Mounting Kit
2245B001	PA-V17 AC Adapter

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
8222B001	RM-64 v2.0 Network Video Recording Software
8222B002	RM-25 v2.0 Network Video Recording Software
8222B003	RM-9 v2.0 Network Video Recording Software
8222B004	RM-Viewer v2.0 (1 License)
4973B001	RM-Lite-V Additional Viewer License

ONVIF Conformant Product

The VB-H610D is compatible with the ONVIF (Open Network Video Interface Forum) Profile S conformance, a standard communication protocol. ONVIF support makes it easy to integrate the VB-H610D with other ONVIF compliant third-party products. The VB-H610D is also backwards compliant with earlier versions of the ONVIF Protocol.

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VB-M600D FIXED NETWORK DOME CAMERA

Indoor Megapixel Camera

The 1.3 Megapixel VB-M600D is equipped with a generous array of high-tech features designed to meet the needs of end-users and installers alike. It offers a 101.2° wide angle lens which produces high-quality images with minimal aberrations due to advanced Canon lens-coating technology, and brilliant low-light performance with color video down to 0.018 Lux. The VB-M600D is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection and alerts for Camera Tampering and Volume Detection. The VB-M600D is installation-friendly as it features Canon's unique Easy Setup PTRZ Tool which utilizes special motors to adjust the Pan/Tilt/Rotation angles and Zoom/Focus after installation, and it conforms to the ONVIF network-interoperability standard for simplified integration. This model also includes Canon's advanced DiG!C NET processor for simultaneous transmission of high-quality 1280x960/30fps video in M-JPEG and bandwidth-saving H.264 codec. The VB-M600D is a versatile fixed network dome camera suited for a wide range of IP security applications.

Key Features

- Genuine Canon 101.2º Wide Angle Lens
- ONVIF version 1.02 Conformant Product
- Brilliant Low-light Performance - color video down to 0.018 Lux* and B/W down to 0.001 Lux*
- 1.3 Megapixel CMOS Sensor
- Canon's Unique Easy Set-up PTRZ Tool
- On-board Video Analytics
- H.264 and JPEG

Abandoned Object Detection - the detection area, sensitivity and duration can be finely tuned allowing for precise, real-time event detection by the camera.

- DiG!C NET Processor
- Smart Shade Control

Recommended For:

- Reception Areas
- Retail Stores
- Elevators
- Hotel Lobbies
- Educational Institutions
- Airports

VB-M600D

Canon

VB-M600D

PRODUCT NAME: VB-M600D ITEM CODE: 4959B001 UPC CODE: 13803134797

SPECIFICATIONS

CAMERA UNIT	IMAGE SENSOR		1/3" 1.3 MegaPixel CMOS Sensor
	TOTAL NUMBER OF PIXELS		Approx. 1.3 Million Pixels
	SCANNING METHOD		Progressive Scan
	ZOOM		3x Optical Zoom
	FOCAL LENGTH / F-STOP		F= 2.8 (W) – 8.4 mm (T) / F1.2 - 2.0
	ANGLE OF VIEW		101.2° (W) / 33.7° (T)
	ROTATION RANGE		350° (+ / - 175°)
	PAN ANGLE RANGE		350° (+ / - 175°)
	TILT ANGLE RANGE		150° (+ / - 75°)
	MOVING RATE		Pan: 19.2° / Sec, Tilt: 14.2° / Sec, Rotate: 43.7° / Sec
	DAY / NIGHT MODE		Auto / Manual
	IR CUT FILTER		Yes
	MINIMUM ILLUMINATION	Color	0.018*
		B/W	0.001*
	FOCUS		One-shot AF / Manual / Fixed at Infinity
	FOCUS RANGE		Day Mode: 1 Ft. / Night Mode: 3.3 Ft.
	AUTO EXPOSURE		Flickerless / Shutter Priority AE / Manual
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000 sec.
	WHITE BALANCE		Auto / Select Light Source (Warm Fluorescent, White Fluorescent, Daylight Fluorescent, Mercury Lamp, Sodium Lamp, Halogen Lamp) / Lock (One-shot WB) / Manual
	METERING MODE		Center-Weighted / Average / Spot
	EXPOSURE COMPENSATION		7 Levels
	SMART SHADE CONTROL		7 Levels
CAMERA SERVER	VIDEO COMPRESSION METHOD		H.264 / JPEG
	OUTPUT IMAGE/VIDEO SIZE		H.264: 1280 x 960, 640 x 480, 320 x 240
			MJPEG: 1280 x 960, 640 x 480, 320 x 240, 160 x 120
	VIDEO QUALITY		MJPEG / H.264: 5 Levels
	FRAME RATE		H.264: 10 / 15 / 30 fps / MJPEG: 0.1 - 30 fps
	MAXIMUM FRAME RATE		H.264: 30 fps @ 1280 x 960 / MJPEG: 30 fps @ 1280 x 960
	SIMULTANEOUS CLIENT ACCESS		H.264: 10 clients / JPEG: 30 Clients
	AUDIO COMPRESSION METHOD		G.711 μ-LAW (64kbps)
	AUDIO COMMUNICATION		2-Way Full Duplex
	AUDIO PLAYBACK		Audio files can be played on event detection
	PROTOCOL		Pv4: TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (client), DHCP (client), DNS (client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
			IPv6: TCP/IP, UDP, HTTP, FTP, SMTP (client), DNS (client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
	COMMUNICATION ENCRYPTION		HTTPS, IPsec
	CAMERA CONTROL USER TYPES		Administrator / Authorized Users / Guests
	VIEW RESTRICTION		Available
	PRIVACY MASK		Up to 8 locations
	CONNECTION RESTRICTION		Username / password, IP address restriction
	VIDEO ANALYTICS (Intelligent Function)		Motion Detection / Removed Object / Abandoned Object / Camera Tampering / Sound Detection Field of Detection: Max. 15 places
			Sound: Volume Detection
	IMAGE UPLOAD		JPEG: FTP / HTTP / SMTP
	TEMPORARY STORAGE		Removable SD / SDHC card (up to 32gb), up to 1fps
	EVENT NOTIFICATION		HTTP / SMTP (e-mail)
INTERFACE	NETWORK		1 RJ-45 (100Base-TX, Negotiation: auto / full / half, IEEE 802.3af)
	AUDIO TERMINALS		Input: 1 Mini-Jack Connector (Mono), LINE IN / MIC IN
	(REQUIRES AUDIO INTERFACE CABLE)		Output: 1 Mini-Jack Connector (Mono), LINE OUT
	EXTERNAL DEVICE I / O TERMINAL		Input x 2 / Output x 2
OPERATING TEMPERATURE	TEMPERATURE / HUMIDITY		14°~122° F / -10°~50° C / 5~85%RH (No Condensing)
POWER SUPPLY	POWER OVER ETHERNET		via LAN Connector (IEEE802.3af compliant)
	OPTIONAL AC ADAPTER		AC 100V-240V (PA-V17)
	OPTIONAL EXTERNAL POWER		AC 24V / DC 12V
POWER CONSUMPTION	WITH POWER OVER ETHERNET		DC Input (DC12v) 9 Watts
	WITH OPTIONAL AC ADAPTER		AC Input (AC24v) 8.3 Watts
ENCLOSURE	DIMENSIONS		7.32" x 5.51"
	WEIGHT		2.65 lbs. (1200g)
SOFTWARE	BUNDLED SOFTWARE		VB Initial Setting Tool, RM-Lite

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter
5004B001	PS600-VB Junction Box Mounting Kit
5091B001	SR600-VB Recess Mounting Kit

OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
4973B001	RM-Lite-V Additional Installation License

Easy Set-up PTRZ Tool

Motorized Pan/ Tilt/ Rotate/ Zoom for adjusting camera viewing position after installation

Gone is the need to struggle with focus or lens positioning in difficult installation environments. The VB-M600D features Canon's Easy Set-up PTRZ Tool which is a built-in motor that allows the change of its Pan/ Tilt/Rotation angles, as well as Zoom and Focus after the camera is installed. Just plug the camera in and access the camera remotely to position the camera lens and focus.

ONVIF Conformant Product

The VB-M600D is compatible with the ONVIF (Open Network Video Interface Forum) version 1.02 protocol, a standard communication protocol. ONVIF support makes it easy to integrate the VB-M600D with other ONVIF compliant third-party products. The VB-M600D is also backwards compliant with earlier versions of the ONVIF Protocol.

*Ratings based on F1.2, 1/8 second and Smart Shade Control on.

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VB-H710F FULL HD FIXED IP SECURITY CAMERA

Versatile Full HD Performance

Featuring a distinctive rectangular housing, the VB-H710F Full HD Fixed IP Security Camera is equipped with a built-in Genuine Canon wide-angle 3x optical zoom lens with an ultra-wide 112.6º angle of view. A built-in motorized focus and zoom function enables users to adjust those settings at any time from any Internet-connected PC, which is a major benefit for inaccessible and/or large-scale installations. Integrating an advanced 16:9 CMOS sensor, **DiG!C DV III** image processor, and the new Canon **DiG!C NET II** network video processor for full 1920 x 1080 HD up to 30 fps in both H.264 and M-JPEG, the VB-H710F also provides ONVIF (Open Network Video Interface Forum) Profile S conformance for compatibility with other ONVIF-compliant third-party devices. The VB-H710F is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection, Camera Tampering Detection, Volume Level Detection, and a new Passing (or "tripwire") Detection. A Digital PTZ feature enables users to digitally "zoom" in and crop-out up to five portions of the image. The VB-H710F can then digitally encode and transmit just those cropped areas, which can be viewed in a pre-set tour, in essence providing this fixed camera with PTZ capabilities.

Key Features

- Full HD CMOS Sensor
- Genuine Canon 112.6º Wide Angle Lens
- Brilliant Low-Light Performance
- On-Board Video Analytics
- ONVIF Profile S Conformant
- Canon's Unique Remote Adjustment Function (zoom and focus only)
- **DiG!C DV III** image processor

- **DiG!C NET II** network video processor transmits H.264 and M-JPEG simultaneously at 1920 x 1080 up to 30 fps

Recommended For:

- Financial Institutions
- Industrial Plants and Utilities
- Military and Government Agencies
- Airports and Transportation Centers
- Casino/Gaming Industry
- Commercial Offices/Retail Locations

Canon

VB-H710F Full HD Fixed IP Security Camera

PRODUCT NAME: VB-H710F ITEM CODE: 6815B001 UPC CODE: 013803157406

SPECIFICATIONS

CAMERA	IMAGE SENSOR		1/3 type CMOS (primary color filter)
	NUMBER OF EFFECTIVE PIXELS		Approx. 2.1 million pixels
	SCANNING METHOD		Progressive
	LENS		3x optical (4x digital) zoom lens (electric drive)
	FOCAL LENGTH		2.8 (W) – 8.4mm (T)
	F-NUMBER		F1.2 (W) – F2.0 (T)
	VIEWING ANGLE		Horizontal: 112.6° (W) – 36.7° (T) Vertical: 60.8° (W) – 20.6° (T)
	DAY/NIGHT SWITCH		Auto/Manual
	MIN. SUBJECT ILLUMINATION	Day Mode (color)	0.3 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.02 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.008 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
		Night Mode (monochrome)	0.015 lux (F1.2, shutter speed 1/30 sec., when Smart Shade Control is off, 50IRE) 0.001 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is off, 50IRE) 0.0005 lux (F1.2, shutter speed 1/2 sec., when Smart Shade Control is on, 50IRE)
	FOCUS		One-shot AF/Manual/Fixed at infinity
	SHOOTING DISTANCE (FROM FRONT OF LENS)		Day Mode: 0.3m (12 in.) – infinity Night Mode: 1.0m (3.3 ft.) – infinity
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000 sec.
	EXPOSURE		Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/ Manual (Shutter Speed, Aperture, Gain)
	WHITE BALANCE		Auto/Light Source (Daylight Fluorescent/White Fluorescent/ Warm Fluorescent/ Mercury Lamp/Sodium Lamp/Halogen Lamp)/Lock (One-shot WB)/Manual
	METERING MODE		Center-Weighted/Average/Spot
	EXPOSURE COMPENSATION		9 levels
	SMART SHADE CONTROL		7 levels (increases the brightness of shaded subjects in a video)
	AGC LIMIT		5 levels
SERVER	VIDEO COMPRESSION METHOD		M-JPEG, H.264
	VIDEO SIZE		M-JPEG: 1920 x 1080, 960 x 540, 480 x 270, 320 x 240 H.264: 1920 x 1080, 960 x 540, 480 x 270
	VIDEO QUALITY		M-JPEG, H.264: 5 levels
	FRAME RATE		M-JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps
	MAX. FRAME RATE		1920 x 1080: 30 fps
	I-FRAME INTERVAL		0.5/1/1.5/2/3/4/5 sec
	SIMULTANEOUS CLIENT ACCESS		Max. 30 Clients + 1 Admin Client – H.264: Max. 10 Clients
	CAMERA CONTROL		Administrator, Authorized user, Guest user (level of control varies depending on user) Max. 50 user names and passwords registered for authorized users.
	ACCESS CONTROL		User authority (user name and password), Host Access Restrictions (IPv4, IPv6)
	ENCRYPTED COMMUNICATIONS		SSL/TLS, IPsec (Auto Key Exchange/Manual)
	PROTOCOL	IPv4	TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (Client), DHCP (Client), DNS (Client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
		IPv6	TCP/IP, UDP, HTTP, FTP, SMTP (Client), DHCPv6 (Client), DNS (Client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon proprietary), ONVIF
	AUTOIP		Available
	AUDIO COMPRESSION METHOD		G.711 µ-law (64 kbps)
	AUDIO COMMUNICATION METHOD		Full-duplex (two-way) – Echo cancellation function compliant Sound Transfer Protocol by Canon
	PRESET		Max. 20 positions (Digital) (Preset Tour capable)
	INTELLIGENT FUNCTION	VIDEO	Detection Types: moving object detection, abandoned object detection, removed object detection, camera tampering detection, and passing detection
		DETECTION SETTINGS	Max. 15
		VOLUME	Volume Detection
	IMAGE UPLOAD		FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5 MB, Frame Rate: Max. 10 fps
	EVENT NOTIFICATION		HTTP/SMTP (e-mail)
	IMAGE CROPPING FUNCTION		Digital PTZ Cropping sizes: 640 x 360, 512 x 288, 384 x 216, 256 x 144, 128 x 72
INTERFACE	NETWORK TERMINAL		LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT
	EXTERNAL DEVICE I/O TERMINAL		Input x 2, Output x 2
	MEMORY CARD		SD, SDHC, SDXC Memory Card Compatible. Frame Rate: Max. 1 fps
OPERATING ENVIRONMENT	TEMPERATURE		-10°C – +50°C (+14°F – +122°F)
	HUMIDITY		5% – 85% (without condensation)
POWER SUPPLY	PoE		PoE power supply via LAN connector (IEEE802.3af compliant)
	AC ADAPTER		PA-V17 (100 – 240 V AC) (sold separately)
	EXTERNAL POWER SOURCE		24 V AC/12 V DC

SPECIFICATIONS (cont.)

POWER CONSUMPTION	WITH PoE	Max. approx. 6.9 W
	WITH PA-V17 AC ADAPTER	Max. approx. 8.64 W
	WITH DC	Max. approx. 7.0 W
	WITH AC	Max. approx. 6.5 W
OTHER	DIMENSIONS (H X W X D)	2.56 x 3.15 x 7.56 in. (65 x 80 x 192 mm)
	WEIGHT	1.48 lbs (670 g)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter

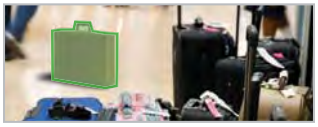
OPTIONAL SOFTWARE

ITEM CODE NO.	DESCRIPTION
8222B001	RM-64 v2.0 Network Video Recording Software
8222B002	RM-25 v2.0 Network Video Recording Software
8222B003	RM-9 v2.0 Network Video Recording Software
8222B004	RM-Viewer v2.0 (1 License)
4973B001	RM-Lite-V Additional Viewer License

On-Board Video Analytics

The VB-H710F includes a variety of Video Analytics

- Moving Object Detection
- Removed Object Detection
- Abandoned Object Detection
- Volume Detection
- Camera Tampering Detection
- Passing (Tripwire) Detection



Abandoned Object Detection can quickly detect suspicious objects and alert predesignated parties

The detection area, sensitivity and duration can be finely tuned allowing for precise event detection by the camera, while advanced notification tools can notify predesignated parties, saving valuable response time.

The VB-H710F also includes a Privacy Mask Function which can be used to block selected areas of the camera's view. In sensitive locations where surveillance is required but particular areas can't be seen or recorded – such as door entry or ATM keypads, computer monitors or apartment windows – a Privacy Mask will hide that area while still allowing a full range of motion.

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VB-M700F FIXED NETWORK CAMERA

Sleek, Fixed Megapixel

Streamlined in appearance, the Canon VB-M700F fixed network camera provides outstanding image quality (even in low-light), built-in video analytics, conformance to the ONVIF (Open Network Video Interface Forum) interoperability standard, and many other advanced features. The VB-M700F is outfitted with a Genuine Canon 102.5° wide angle lens, a 1/3-inch high-sensitivity 1.3 Megapixel CMOS image sensor, and a Canon DiG!C NET image processor for simultaneous transmission of high-quality video of up to 1280x960/30 fps in M-JPEG and bandwidth-saving H.264. Proprietary Canon image processing built into the VB-M700F includes Smart Shade Control, which automatically adjusts the contrast between bright and dark image areas for optimum detail display, as well as a special Night Mode that increases sensitivity in low-light environments. The VB-M700F is also equipped with On-board Video Analytics including Moving Object Detection, Removed Object Detection, Abandoned Object Detection and alerts for Camera Tampering and Volume Detection. User-adjustable in terms of the detection areas (sizes and shapes), these Intelligent Features can engage configured alarms and notification functions.

Key Features

- 102.5° Wide Angle Lens
- ONVIF version 1.02 Conformant Product
- 1.3 Megapixel CMOS Sensor
- Brilliant Low-light Performance - color video down to 0.018 Lux* and B/W video down to 0.001 Lux*
- Canon's Unique Easy Setup Tool
- On-board Video Analytics

The Privacy Mask Function blocks certain sensitive areas of the camera view (such as ATM keypads) while still allowing a full field of view.

- H.264 and JPEG
- DiG!C NET Processor

Recommended For:

- Financial Institutions
- Transportation Centers
- Retail Stores
- Hotels
- Educational Institutions
- Gaming Establishments

VB-M700F

Canon

VB-M700F

PRODUCT NAME: VB-M700F ITEM CODE: 4961B001 UPC CODE: 13803134780

SPECIFICATIONS

CAMERA UNIT	IMAGE SENSOR		1/3" 1.3 Mega Pixel CMOS Sensor
	TOTAL NUMBER OF PIXELS		Approx. 1.3 Million Pixels
	SCANNING METHOD		Progressive Scan
	ZOOM		3x Optical Zoom
	ANGLE OF VIEW		102.5° (W) / 34.2° (T)
	FOCAL LENGTH		F=2.8 (W) – 8.4 mm (T)
	F-NUMBER		F1.2 (W) - 2.0 (T)
	DAY/ NIGHT MODE		Auto / Manual
	IR CUT FILTER		Yes
	MINIMUM ILLUMINATION	COLOR	0.018 (F 1.2, 1/8 Sec, SSC On)
		B & W	0.001 (F 1.2, 1/8 Sec, SSC On)
	FOCUS		One-shot AF / Manual / Fixed at Infinity
	FOCUS RANGE		Day Mode: 1 ft / Night Mode: 3.3 ft
	AUTO EXPOSURE		Auto / Flickerless / Shutter Priority AE / Manual
	SHUTTER SPEED		1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000 sec.
	WHITE BALANCE		Auto / Select Light Source (Warm Fluorescent, White Fluorescent, Daylight Fluorescent, Mercury Lamp, Sodium Lamp, Halogen Lamp) / Lock (One-shot WB) / Manual
	METERING MODE		Center-Weighted / Average / Spot
	EXPOSURE COMPENSATION		7 Levels
	SMART SHADE CONTROL		7 Levels
CAMERA SERVER	VIDEO COMPRESSION METHOD		H.264 / JPEG
	OUTPUT IMAGE/VIDEO SIZE	H.264	1280 x 960, 640 x 480, 320 x 240
		MJPEG	1280 x 960, 640 x 480, 320 x 240, 160 x 120
	VIDEO QUALITY	H.264	5 Levels
		MJPEG	5 Levels
	FRAME RATE	H.264	10 / 15 / 30 fps
		MJPEG	0.1 - 30 fps
	MAXIMUM FRAME RATE	H.264	30 fps @ 1280 x 960
		MJPEG	30 fps @ 1280 x 960
	SIMULTANEOUS CLIENT ACCESS	H.264	10 clients
		MJPEG	30 Clients
	AUDIO COMPRESSION METHOD		G.711 μ-LAW (64kbps)
	AUDIO COMMUNICATION		2-Way Full Duplex
	AUDIO PLAYBACK		Audio files can be played on event detection
	PROTOCOL	PV4	TCP / IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (client), DHCP (client), DNS (client), ARP, ICMP, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
		IPV6	TCP / IP, UDP, HTTP, FTP, SMTP (client), DNS (client), ICMPv6, POP3, NTP, SMTP authentication, WV-HTTP (Canon protocol), ONVIF
	COMMUNICATION ENCRYPTION		HTTPS, IPsec
	CAMERA CONTROL USER TYPES		Administrator / Authorized Users / Guests
	VIEW RESTRICTION		Available
	PRIVACY MASK		Up to 8 locations
	CONNECTION RESTRICTION		Username / password, IP address restriction
	VIDEO ANALYTICS (Intelligent Function)		Image: Moving Object Detection / Removed Object Detection / Abandoned Object Detection / Camera Tampering Detection Field of Detection: Max. 15 places
			Sound: Volume Detection
	IMAGE UPLOAD		JPEG: FTP / HTTP / SMTP
	TEMPORARY STORAGE		Removable SD / SDHC card (up to 32gb), up to 1fps
	EVENT NOTIFICATION		HTTP / SMTP (e-mail)
	DISPLAY LANGUAGES		English / Japanese / French / Italian / German / Spanish
INTERFACE	NETWORK		1 RJ-45 (100Base-TX, Negotiation: auto / full / half, IEEE 802.3af)
	AUDIO TERMINALS	INPUT	1 Mini-Jack Connector (Mono), LINE IN or MIC IN
		OUTPUT	1 Mini-Jack Connector (Mono), LINE OUT
	EXTERNAL DEVICE I / O TERMINAL		Input x 2 / Output x 2
OPERATING TEMPERATURE	TEMPERATURE / HUMIDITY		14°~122° F / -10°~50° C / 5~85%RH (No Condensing)
POWER SUPPLY	PoE		via LAN Connector (IEEE802.3af compliant)
	OPTIONAL AC ADAPTER		AC 100V - 240V (PA-V17)
	OPTIONAL EXTERNAL POWER		AC 24V / DC 12V
POWER CONSUMPTION	WITH PoE		5.9 W **
	WITH OPTIONAL AC ADAPTER		6.9 W **
	DC 12V		5.7 W **
	AC 24V		5.4 W **

**Approximately

SPECIFICATIONS (cont.)

OTHER	BUNDLED SOFTWARE	VB Tools, RM-Lite , Camera Angle Setting Tool
	DIMENSIONS (H X W X L)	2.56 x 3.15 x 7.56 in. (65.0 x 80.01 x 192.02 mm)
	WEIGHT	1.53 lbs. (0.69 kg)

OPTIONAL ACCESSORIES

ITEM CODE NO.	DESCRIPTION
2245B001	PA-V17 AC Adapter

OPTIONAL SOFTWARE

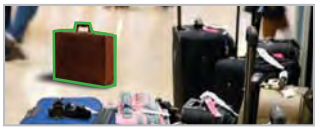
ITEM CODE NO.	DESCRIPTION
4973B001	RM-Lite-V (Additional Installation License)

*Ratings based on F1.2, 1/8 second and Smart Shade Control on.

On-Board Video Analytics

The VB-M700F includes a variety of Video Analytics

- Moving Object Detection
- Removed Object Detection
- Abandoned Object Detection
- Volume Detection
- Camera Tampering Detection



The detection area (sizes and shapes) can be finely tuned allowing for precise event detection by the camera, while advanced notification tools can notify predesignated parties, saving valuable response time.

The VB-M700F also includes a Privacy Mask Function which can be used to block selected areas of the camera's view. In sensitive locations where surveillance is required but particular areas can't be seen or recorded – such as door entry or ATM keypads, computer monitors or apartment windows – a Privacy Mask will hide that area while still allowing a full range of motion.

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VC-C50i/VC-C50iR PTZ ANALOG CAMERAS

Analog PTZ Excellence

Designed to meet the specialized needs of analog video security system users, Canon's VC-C50i and VC-C50iR PTZ analog cameras (the VC-C50iR is the reverse-mounted version) provide wide-ranging, high-precision PTZ operation with impressive low-light performance and a Genuine Canon 26X Optical Zoom Lens with 12X Digital Zoom capability. These cameras are perfect for professional-grade installations, providing a secure and sturdy connection interface. A superb value for any security-monitoring budget, the VC-C50i and VC-C50iR can deliver high-quality video from far distances and in darkness thanks to a built-in infrared (IR) illuminator. Building on Canon's long-standing tradition as a leader in optics and image processing, the VC-C50i and VC-C50iR offer great flexibility in very demanding environments, making these remarkable analog PTZ security cameras ideal for the world of video monitoring.

Key Features

- Genuine Canon 26x Optical Zoom Lens
- Wide pan range of 200° and tilt range of 120° (ceiling-mounted VC-C50iR reverse model pans 340°)
- Impressive Low-Light performance
- Installation connectivity convenience – secure and sturdy Multiple Connector Interface and Connector Block for S-Video out, RS-232C in/out, Alarm out, Sensor in, External Light Trigger, and more

The Minimum Subject Illumination feature of the VC-C50i/VC-C50iR produces images down to 1 Lux (at 1/30 sec. shutter speed). In total darkness the camera's built-in infrared (IR) illuminator lets users continue to monitor the action (effective up to 9.8 ft.).

- Compact: VC-C50i only weighs 0.92 lbs. and VC-C50iR only weighs 1.08 lbs.

Recommended For:

- Parking Lots
- University Campuses
- Hospitals
- Warehouse Facilities
- Retail Stores
- Web Conferencing

VC-C50i / VC-C50iR

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VC-C50i/VC-C50iR

PRODUCT NAME: VC-C50i / VC50iR ITEM CODE: 0667B001 (VC-C50i) / 0668B001 (VC-C50iR) UPC CODE: 013803054415 (VC-C50i) / 013803054439 (VC-C50iR)

SPECIFICATIONS

MODEL NUMBER		VC-C50i	VC-C50iR
VIDEO SIGNAL		Conforms to NTSC	
IMAGE SENSOR		1/4-inch CCD (primary color filter)	
NUMBER OF PIXELS		NTSC use: 680,000 (effective 340,000)	
SYNCHRONIZATION		Internal	
HORIZONTAL RESOLUTION NTSC		460 TV lines	
VERTICAL RESOLUTION		350 TV lines	
S/N RATIO		48 dB	
SCANNING METHOD		2:1 interlaced	
LENS	ZOOM RATIO	26X Optical Zoom Lens (12X Digital)	
	FOCAL LENGTH	f=3.5~91mm / F1.6 (W)~4.0 (T)	
ANGLE OF VIEW	HORIZONTAL	42° (W) - 1.7° (T)	
	VERTICAL	31.5° (W) - 1.2° (T)	
MINIMUM ILLUMINATION		Color Video: 1 Lux (Normal Mode at 1/30 sec)	
		Black/White Video: 0 Lux (Night Mode with infrared (IR) illuminator)	
IMAGING MODES		Normal mode, Night mode	
FOCUSING		Auto / Manual Wide-angle: 0.03 in. to inf.; Telephoto: 5.25 ft. to inf.	
		(In Night mode) Wide-angle: 0.07 in. to inf.; Telephoto: 7.55 ft. to inf.	
APERTURE		Auto iris servo system	
LENS		Focal Length: 3.5 mm to 91.0 mm, f / 1.6 to f / 4.0, 26x Power Zoom (shooting at infinity)	
ZOOM		26x Power Zoom (shooting at infinity)	
PAN ANGLE RANGE		±100°	±170°
TILT ANGLE RANGE		+ 90° / - 30°	+ 10° / - 90°
INFRARED CUT FILTER		Power driven insertion / removal (Normal mode / Night mode)	
VIDEO STANDARD		NTSC	
VIDEO OUTPUT		BNC, S-Video (Multi-connector Interface)	
IR CUT FILTER ON / OFF		YES	
MULTIPLE CONNECTOR I / F		S-Video Out, RS232C In / Out, External Lighting On / Off, External Alarm Sensor Out	
		External Sensor In	
BUILT-IN IR LIGHT		Yes, effective range approx. 10 feet (3 m)	
MAX. ROTATION SPEED		90° / sec (Pan), 70° / sec (Tilt)	
WHITE BALANCE		Auto / Manual	
MINIMUM ILLUMINATION		1 Lux (1 / 30 sec)	
BACKLIGHT CONTROL		3 steps	
CAMERA ANGLE PRESETS		9 positions	
POWER SOURCE		AC Power Adapter (Supplied) 100-240V AC	
MAX. POWER CONSUMPTION		Approx. 12.5 W (including AC power adapter)	
OPERATING ENVIRONMENT TEMP		0° C to 40° C (32° F to 104° F); Humidity: 20-85% RH (no condensation)	
INSTALLATION ANGLE		± 20° from horizontal (± 15° with optional wide-angle converter installed)	
DIMENSIONS W x D x H		VC-C50i: 3.9 × 4.6 × 3.8 in. (100 × 117 × 96 mm)	VC-C50iR: 3.9 × 4.6 × 3.8 in. (100 × 117 × 97.6 mm)
WEIGHT		0.92 lb. (420 g)	1.08 lb. (468 g)

*(excluding attachments)

OPTIONAL ACCESSORIES

	Item Code	Model#	Description
ADAPTER	0611B001	VC-EX3	Interface
CABLES	1025V632	RS-232C	18" Control Cable
OTHER NVS ACCESSORIES	4674A001	WL-37	Wide Angle Converter Lens
	7245A001	WL-V5	Wireless Controller
	0027T861	VC-C3	Wide Converter Lens & Ring

Low Light Performance

Don't lose sight of anything — even in low light, or complete darkness. With the Minimum Subject Illumination feature of the VC-C50i and VC-C50iR, you can still see what's happening even when light gets as low as 1 Lux (at 1/30 second shutter speed). Not only that, but when the lights go out completely, these camera's built-in infrared (IR) illuminator lets you continue to monitor the action (effective up to 9.8 feet).

Wide Angle View...Or Zoom In

26X Zoom

The VC-C50i and VC-C50iR come with a high quality 42° Lens with an outstanding 26X Optical Zoom and 12X Digital Zoom capability. With this combination users will get a wide-angle view that shows large areas with the ability to zoom in and get immediate close-up views. When it comes to security camera zoom lenses, the VC-C50i and VC-C50iR offer great performance in a compact and lightweight body.

Wide Pan And Tilt Ranges

The VC-C50i lets you see exactly what you need to by panning through a broad reach of 200° or tilting through 120°. The ceiling-mounted, reverse model VC-C50iR also lets you tilt 120°, and in addition it lets you pan a remarkable 340°. There's no hiding from these cameras!

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IP SECURITY CAMERAS

Compact and competitively priced, Canon offers a full line of PTZ (pan-tilt-zoom) and fixed IP Security Cameras that deliver clear, crisp video, Genuine Canon optics, exceptional low-light performance, and all the advantages of IP connectivity for remote video monitoring. Select models also include Megapixel resolution, On-board Video Analytics, ONVIF conformance, vandal-resistant domes, DiG!C NET Processors, and other advanced features to meet the needs of virtually every IP Security Camera application.

PTZ CAMERAS

FIXED CAMERA

SPECIFICATIONS

PRODUCT NAME (ITEM CODE)	**VB-M40** (4085B002)	**VB-C60** (2812B015)	**VB-C300** (1867B001)	**VB-M700F** (4961B001)
APPROXIMATE NO. OF PIXELS	1.3M	310K	340K	1.3M
IMAGE SENSOR	1/3 CMOS	1/4 CCD	1/4 CCD	1/3 CMOS
MAXIMUM RESOLUTION	1280 X 960	640 X 480	640 X 480	1280 X 960
VIDEO COMPRESSION FORMAT	H.264 / JPEG	MPEG-4 / JPEG	MJPEG	H.264 / JPEG
ZOOM	20x Optical, 4x Digital	40x Optical, 4x Digital	2.4x Optical, 4x Digital	3x optical
ANGLE OF VIEW (W / T)	55.4° / 2.9°	55.8° / 1.6°	70.8° / 29.6°	102.5° / 34.2°
F-NUMBER (W / T)	1.6(W) / 3.5(T)	1.6(W) / 5.6(T)	2.0(W) / 3.4(T)	1.2(W) / 2.0(T)
MIN. SUBJECT ILLUMINATION (COLOR / B & W)	0.03 Lux* / 0.001 Lux*	0.7 Lux** / 0.2 Lux**	1.0 Lux*** / 0.25 Lux***	0.018 Lux**** / 0.001 Lux****
DAY / NIGHT MODE	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
IR CUT FILTER	Yes	Yes	Yes	Yes
FOCUS	Auto / One-shot AF / Manual / Infinity	Auto / One-shot AF / Manual / Infinity	Auto / One-shot AF / Manual / Infinity	One-shot AF / Manual / Infinity
AUDIO	G.711 µ-LAW	G.711 µ-LAW	G.711 µ-LAW	G.711 µ-LAW
SECURITY	HTTPS, IPsec, SSL / TSL	IPsec	-	HTTPS, IPsec, SSL / TSL
ON-BOARD VIDEO ANALYTICS (INTELLIGENT FEATURES)	Moving Object, Removed Object, Abandoned Object, Volume Detection, Camera Tampering	Moving Object	-	Moving Object, Removed Object, Abandoned Object, Volume Detection, Camera Tampering
IMAGE STABILIZER	Yes (Electric)	Yes (Electric)	-	-
SD CARD SLOT	Yes	-	-	Yes
ALARM IN / OUT	2 / 2	2 / 2	2 / 1	2 / 2
ONVIF CONFORMANCE	Yes (1.02)	-	-	Yes (1.02)
POWER	PoE (802.3af), AC 24V / DC 12V	PoE (802.3af), AC 24V / DC 12V	PoE (802.3af), AC 24V / DC 12V	PoE (802.3af) AC 24V / DC 12V
WEIGHT	2.5 lbs. (1.15 kg)	1.85 lbs. (840 g)	1.85 lbs. (840 g)	1.52 lbs. (690 g)

CANON IP SECURITY CAMERAS

DOME CAMERAS

SPECIFICATIONS

PRODUCT NAME (ITEM CODE)	**VB-M600VE** (4960B001)	**VB-M600D** (4959B001)	**VB-C500VD** (4073B002)	**VB-C500D** (3934B003)
APPROXIMATE NO. OF PIXELS	1.3M	1.3M	310K	310K
IMAGE SENSOR	1/3 CMOS	1/3 CMOS	1/4 CCD	1/4 CCD
MAXIMUM RESOLUTION	1280 X 960	1280 X 960	640 X 480	640 X 480
VIDEO COMPRESSION FORMAT	H.264 / JPEG	H.264 / JPEG	MPEG-4 / JPEG	MPEG-4 / JPEG
ZOOM	3x optical	3x optical	2.4x optical, 4x Digital	2.4x optical, 4x Digital
ANGLE OF VIEW (W/T)	101.2° / 33.7°	101.2° / 33.7°	82° / 34°	82° / 34°
F-NUMBER (W/T)	1.2 (W) / 2.0 (T)	1.2 (W) / 2.0 (T)	1.1 (W) / 1.6 (T)	1.1 (W) / 1.6 (T)
MIN. SUBJECT ILLUMINATION (COLOR/B&W)	0.018 Lux**** / 0.001 Lux****	0.018 Lux**** / 0.001 Lux****	0.2 Lux***** / 0.1 Lux*****	0.2 Lux***** / 0.1 Lux*****
DAY/NIGHT MODE	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
IR CUT FILTER	Yes	Yes	-	-
FOCUS	One-shot AF / Manual / Infinity	One-shot AF / Manual / Infinity	Manual	Manual
AUDIO	G.711 µ-LAW	G.711 µ-LAW	G.711 µ-LAW	G.711 µ-LAW
SECURITY	HTTPS, IPsec, SSL / TSL	HTTPS, IPsec, SSL / TSL	IPsec	IPsec
INTELLIGENT VIDEO	Moving Object, Removed Object, Abandoned Object, Volume Detection, Camera Tampering	Moving Object, Removed Object, Abandoned Object, Volume Detection, Camera Tampering	Moving Object	Moving Object
SD CARD SLOT	Yes	Yes	-	-
ALARM IN/OUT	2 / 2	2 / 2	2 / 2	2 / 2
ONVIF	Yes (1.02)	Yes (1.02)	-	-
IP RATED	IP66	-	-	-
VANDAL/TOUGH	Yes	-	Yes	-
POWER	PoE (802.3af) AC 24V / DC 12V	PoE (802.3af) AC 24V / DC 12V	PoE (802.3af) AC 24V / DC 12V	PoE (802.3af) AC 24V / DC 12V
WEIGHT	4.2 lbs. (1.9 kg)	2.6 lbs. (1.2 kg)	1.72 lbs. (780 g)	1.36 lbs (640 g)

SOFTWARE INTEGRATION PARTNERS

3VR · Aventura · Dedicated Micros · DIGIOP Intelligence Inspired · exacq Technologies · Genetec · i3 International · IPVideo Corporation · ipConfigure · JDS Digital Security Systems · LENSEC The Power of Perspective · Luxriot · milestone · OnSSI · Salient Systems · Synology NEW NAS Experience · VideoInsight

*Ratings based on F1.6, 1/8 second and Smart Shade Control on.
**Ratings based on F1.6, 1/30 second.
***Ratings based on F2.0, 1/30 second.
****Ratings based on F1.2, 1/8 second and Smart Shade Control on.
*****Ratings based on F1.1, 1/30 second.

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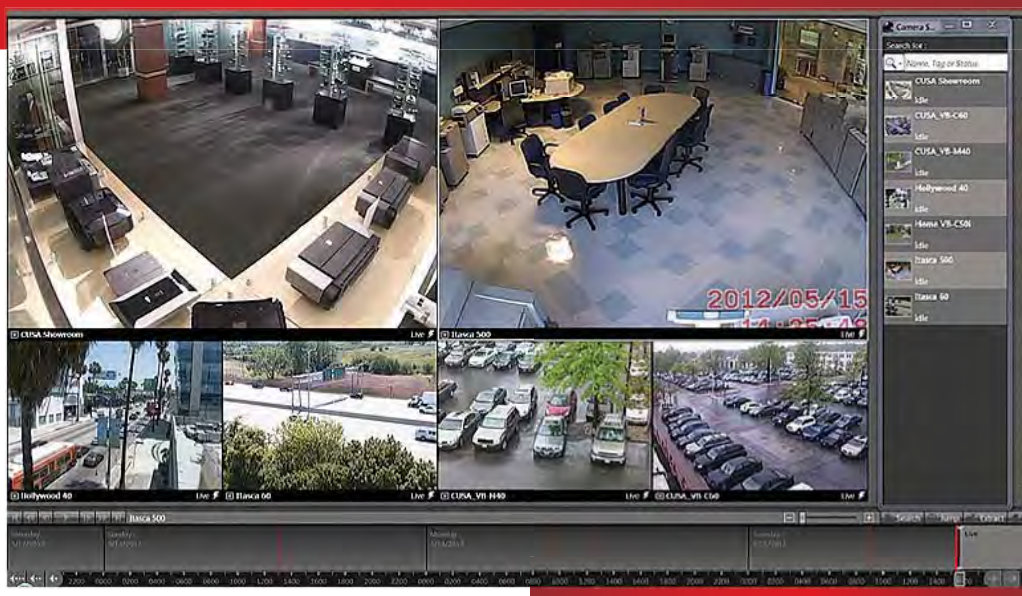
RM-64/RM-25/RM-9/RM-LITE
CANON NETWORK VIDEO RECORDING SOFTWARE



Versatile Monitoring

Enhanced and expanded security monitoring capabilities are at your fingertips with Canon Network Video Recording Software. Control of Canon's PTZ cameras has been simplified by enabling users to mouse-click on the live camera view for instant camera centering. Zoom can also be easily controlled via mouse scroll wheel or zoom overlay. In the case of Canon's Full HD and 1.3 Megapixel fixed and PTZ security cameras, Canon RM Software supports recording based on the video analytics of these products, including: motion detection, camera tampering detection, removed object detection, abandoned object detection, and sound volume level detection. A wide array of additional features provides added versatility in the form of support for two monitors, dynamic layouts, easy camera search, multiple camera support, the ability to view both live and recorded video, audio recording and playback, and multiple recording modes, including increasing the frame rate from 5fps to 30fps when motion is detected. Canon RM Software also supports recording in M-JPEG, MPEG-4, data-saving H.264 and varying resolutions (depending on the Canon security camera being used).

Key Features

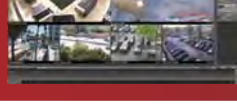
- Multiple Recording Modes: Continuous, Scheduled, Sensor-Triggered, Motion-Detected, and – for Full HD and 1.3 Megapixel models – Analytics-Based and Audio Volume-Based
- Multiple Ways to Retrieve and Playback Video
- Built-In Motion Detection
- Live Two-Way Audio
- Layout Tab Support for Easier Switching

Multiple Recording Modes

- Multiple Client Support
- Custom User Groups

Recommended For:

- Retail Stores
- Financial Institutions
- Educational Institutions
- Warehouses
- Transportation Centers



RM-64/RM-25/RM-9/RM-LITE NETWORK VIDEO RECORDING SOFTWARE

SPECIFICATIONS

NAME			RM-64 v2.0	RM-25 v2.0	RM-9 v2.0	RM-Lite*
ITEM CODE			8222B001	8222B002	8222B003	
UPC CODE			013803214314	013803214321	013803214338	
COMPATIBLE CAMERA SERVERS			VB-H41, VB-H610VE, VB-H610D, VB-H710F, VB-M40, VB-M600D, VB-M600VE, VB-M700F, VB-C500D/VB-C500VD, VB-C60/VB-C60B, VB-C300/VB-C300B, VB-C50i/VBC50iR, VB-C50FSi, AXIS Q7401, AXIS Q7404			VB-H41, VB-H610VE, VB-H610D, VB-H710F, VB-M40, VB-M600D, VB-M600VE, VB-M700F, VB-C500D/ VB-C500VD, VB-C60/ VB-C60B, VB-C300/VBC-300B, VB-C50i/VB-C50FSi
RECORDING FUNCTIONS	RECORDING FILE FORMAT		H.264/MPEG-4/JPEG			JPEG
	MAXIMUM NUMBER OF CAMERAS		64	25	9	4
	IMAGE SIZE		160 x 120, 320 x 240, 640 x 480, 1280 x 960			
	RECORDING MEDIA		HDD			
	RECORDING TIME		Depends on the available disk space			
	RECORDING FRAME RATE		0.1 - 30 fps			0.1 - 5 fps
	RECORDING MODE	CONTINUOUS RECORDING	Yes			Yes
		SENSOR DETECTION RECORDING	Yes			N/A
		MOTION DETECTION RECORDING	Yes			N/A
		INTELLIGENT FUNCTION DETECTION RECORDING	Yes			N/A
		VOLUME DETECTION RECORDING	Yes			N/A
		PRE-EVENT RECORDING	0 (Max. 30 seconds)			N/A
		POST-EVENT RECORDING	0 (Max. 999 seconds)			
	AUDIO RECORDING FUNCTION		Yes			Yes
VIDEO PLAYBACK DISPLAY	VIDEO WINDOWS		Max. 32 windows per layout			Max. 32 windows per layout (warning will display when 8 or more windows are displayed)
			6 or less windows are recommended for H.264/MPEG-4 videos			
	PLAYBACK WHILE RECORDING		Yes			
	LIVE VIEW WHILE RECORDING		Yes			
	REWIND/FAST FORWARD SPEED		2x, 5x, 10x			
	LAYOUT TYPE		Normal Layout, Dynamic Layout			Normal Layout
	AUTOMATIC LAYOUT SWITCH (LAYOUT SEQUENCE)		Yes			N/A
MAX. SYS. CONFIG.	NUMBER OF SIMULTANEOUS VIEWER CONNECTIONS TO STORAGE SERVER		Max. 6			

*Bundled with the VB-H and VB-M series

Minimum Requirements for Small-Scale User Systems						
NAME			RM-64 v2.0	RM-25 v2.0	RM-9 v2.0	RM-Lite
OPERATING ENVIRONMENT	STORAGE SERVER/VIEWER SYSTEM (Minimum Requirements)	CPU	Intel Pentium G6950 2.80 GHz or faster, or equivalent class Intel CPU that meets the requirements below. Clock speed: 2.4 GHz or faster L2 cache: 512 KB or more L3 cache: 3 MB or more (however, if L2 cache is more than 3 MB, L3 cache size does not matter) Number of cores: more than 2			
		OPERATING SYSTEM	Windows Vista Ultimate/Business/Enterprise SP2 32/64-bit, Windows 7 Ultimate/Professional/Enterprise SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard SP1 64-bit			Windows Vista Ultimate / Business /Enterprise / Home Premium SP2 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard 64-bit, Windows Server 2008 R2 Standard SP1 64-bit
		MEMORY	2 GB or more			
		GRAPHICS	None specified			
		HARD DISK	Interface: SAS/SATA Cache: 16 MB or more Spindle Speed: 7200 rpm or faster *Hard disk space requirements vary depending on the number of connected cameras and recording settings. *Additional hard disk space, enough to save the data, is required when exporting the recorded data. *200 MB is required for installing Viewer and Recording Server software on the same computer. However, an additional 500 MB is required if .NET Framework 3.5 SP1 is not installed.			
		DISPLAY RESOLUTION	1280 x 1024 or higher / 16-bit color or more			
		NETWORK CONTROLLER	100 Mbit or faster			

Minimum Requirements for Large-Scale / Reliability-Based Systems						
NAME			RM-64 v2.0	RM-25 v2.0	RM-9 v2.0	RM-Lite
OPERATING ENVIRONMENT	STORAGE SERVER SYSTEM (Minimum Requirements)	CPU	Intel Xeon 3060 2.4 GHz or faster, Intel Core 2 Duo 2.4 GHz or faster, or equivalent class Intel CPU that meets the requirements below. Clock speed: 2.4 GHz or faster L2 cache: 4 MB or more Number of cores: more than 2			
		OPERATING SYSTEM	Windows Vista Ultimate / Business / Enterprise SP2 32/64-bit, Windows 7 Ultimate / Professional / Enterprise SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard SP1 64-bit *When a highly reliable system (such as 24 hours of uninterrupted use) is required, a server operating system is recommended.			Windows Vista Ultimate / Business / Enterprise / Home Premium SP2 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard 64-bit, Windows Server 2008 R2 Standard SP1 64-bit
		MEMORY	2 GB or more			
		HARD DISK	Interface: SAS/SATA Cache: 16 MB or more Spindle Speed: 7200 rpm or faster *When a highly reliable system (such as 24 hours of uninterrupted use and high-frequency hard disk access) is required, SAS interface is strongly recommended. *It is suggested that data space for the operating system and recorded data be on separate hard disks. *100 MB is required for installing the program software. However, an additional 500 MB is required if .NET Framework 3.5 SP1 is not installed. *Hard disk space requirements vary depending on the number of connected cameras and recording settings.			
		DISPLAY RESOLUTION	1280 x 1024 or higher			
		NETWORK CONTROLLER	1 Gbit			
	VIEWER SYSTEM (Minimum Requirements)	CPU	Intel Core i5 750 2.67GHz or faster			
		OPERATING SYSTEM	Windows Vista Ultimate/Business/ Enterprise SP2 32/64-bit, Windows 7 Ultimate/Professional/ Enterprise SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard SP1 64-bit			Windows Vista Ultimate / Business / Enterprise / Home Premium SP2 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium 32/64-bit, Windows 7 Ultimate / Professional / Enterprise / Home Premium SP1 32/64-bit, Windows Server 2008 Standard SP2 32/64-bit, Windows Server 2008 R2 Standard 64-bit, Windows Server 2008 R2 Standard SP1 64-bit
		MEMORY	2 GB or more			
		GRAPHICS	NVIDIA GeForce GT 220 or equivalent class graphic board that meets the requirements below. Video memory size: 1 GB or more Memory interface width: 128-bit or more Memory clock: 790 MHz or more			
		HARD DISK	*100 MB is required for installing the program software. However, an additional 500 MB is required if .NET Framework 3.5 SP1 is not installed. *Additional hard disk space, enough to save the data, is required when exporting the recorded data.			
		DISPLAY RESOLUTION	1280 x 1024 or higher / 16-bit color or more			

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VK-64/VK-16 NETWORK VIDEO MONITORING & RECORDING SOFTWARE

Customizable VMS

Canon's VK-64 Network Video Recording software is ideal for multi-location operations involving up to 64* networked Canon IP security cameras, while Canon's VK-16 software provides the same functionality for up to 16* cameras. Both of these programs are comprised of two different applications: the VK Viewer and the VK Recorder. The VK Viewer allows access and control of the full range of motion, video modes and two-way audio capabilities of multiple Canon PTZ and fixed security cameras. It also allows a user to access and monitor multiple cameras at the same time on a single screen, providing an ideal solution for monitoring centers/security stations. The VK Recorder allows the user to record and access stored video taken from multiple security cameras on a network. This allows video to be stored, managed, and accessed by a PC storage server for fast, efficient archiving, search and playback functions. For those with limited needs, Canon's VK-Lite software, which is provided free of charge with select camera models, is ideal as it provides basic monitoring for up to 4 cameras.

*number of cameras viewed and recorded can be increased with additional servers and licenses.

Key Features

- Customizable Viewing Area
- Layout Creation and Rotation
- Full Camera Control
- Multiple Recording Modes: Continuous, Scheduled, Motion Detection, Sensor-Triggered Event
- Multiple Camera Sync Playback
- Customized Recording Formats
- Video/Audio Recording and Playback

The Full Screen Function allows the user to enlarge the viewing layout to full screen capacity.

- User Control Access
- Alarm-Triggered Recording
- Two-Way Audio

Recommended For:

- Retail Stores
- Financial Institutions
- Educational Institutions
- Warehouses
- Transportation Centers

VK-64 / VK-16

Canon

VK-64/VK-16

PRODUCT NAME: VK-64 ITEM CODE: 4075B001 UPC CODE: 013803117455 PRODUCT NAME: VK-16 ITEM CODE: 4075B002 UPC CODE: 013803117462

SPECIFICATIONS

	FUNCTION	VK-64 / VK-16	VK LITE
CAMERA CONNECTION	MAXIMUM NUMBER OF CAMERA CONNECTIONS	64 / 16	4
	CAMERAS THAT CAN BE REGISTERED	VB-C60, VB-C300, VB-C50 Series, VB-C10/R, VB-150	VB-C60, VB-C300, VB-C50 Series
	AUTOMATIC CAMERA SEARCH	√	√
STORAGE SERVER	VIDEO RECORDING	JPEG, MPEG-4	JPEG only
	MAX. RECORDING FRAME RATE	30 fps*1	5 fps
	VIDEO RECORDING MODES	Constant Recording Scheduled Recording, Schedule Special Recording, Sensor Recording, Motion Detection Recording	Constant Recording, Scheduled Recording
	MAXIMUM FILE SIZE SETTING	Configurable from 32 to 1024 MB, 1 to 24 hours	Fixed at 1 day, 1GB (1024 MB)
	MAXIMUM STORAGE PERIOD	999 weeks	12 weeks (90 days)
	AUDIO RECORDING AND PLAYBACK	√	√
	RECORDING TO NAS SERVER™	√	—
	OTHER LIMITATIONS		The following functions cannot be used: • Sending mail when an event occurs • Customizing priorities of events • Connection via an HTTP proxy
VIEWER	LIVE VIDEO SUPPORT	JPEG, MPEG-4	JPEG, MPEG-4
	MAXIMUM FRAME RATE DISPLAY	30 fps*1	30 fps*1
	MAXIMUM NUMBER OF VIDEO WINDOWS THAT CAN BE DISPLAYED	No Limit	Recommended 8 or Less
	SEND AND RECEIVE AUDIO	√	√
	REGISTER A MASTER STORAGE SERVER*2	√	—
	AUTO SWITCHING FUNCTION	√	—
	OTHER LIMITATIONS	—	The following function cannot be used • Connection via HTTP proxy

*1 Operational limits apply depending on the number of camera servers, the PC performance and hard disk capacity, and the amount of network traffic.

*2 In case of using VK-64/VK-16 with multiple storage servers, you can unify management of camera servers registered to each storage server and the recorded data, if you set one master storage server. When connecting to each storage server using VK-Lite viewer, you need to switch connection one by one.

*3 Layout Sequences is a function to switch displayed viewer windows at set intervals.

Full Camera Control

The VK-64 and VK-16 version 2.2 software allows for complete control over each of the cameras on a network. The camera can be controlled directly from the live video window, allowing the user to easily pan, tilt and zoom.

Easily fine-tune adjustments to the focus method and the pan/tilt/zoom speed with the convenient camera control panel located next to each camera window. In addition, the control panel can be used to set cameras to react quickly to difficult, low-light conditions by activating Night Mode. Settings for exposure, white balance, and Smart Shade Control can also be adjusted to optimize the video capturing environment.

Layout Rotation

The VK-16 and VK-64 version 2.2 software allows users to setup different layouts of cameras, and use the auto switch feature to display those layouts at set intervals. This is a useful function for efficiently checking videos on multiple cameras. Layouts can also be shared with different users.

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